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ORIGINAL ARTICLES.

SOME OBSERVATIONS ON THE THERAPEUTIC USE OF ALCOHOL.

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PART I.

GENERAL CONSIDERATION.

It has been recently asserted on eminent authority, that the human race is undergoing a great change, a leading manifestation of which is the growing intolerance of alcohol.

If this statement is borne out by the facts, it adds largely to its value as a therapeutic agent; and the medical practitioner who discards it from his armamentarium abandons one of the most powerful agents at his command—one whose intelligent use has aided in saving many a life.

We wish it distinctly understood at the outset that we propose no defence of "wine-bibbing;" on the contrary, we utterly condemn the practice, and are strongly of opinion that it would be far better if the use of spirituous and fermented liquors could be made impossible, save under the direction of the conscientious and scientific physician.

We cannot conceive how the modern therapist, who is guided by the results of experience, can renounce alcohol on the ground of a lack of scientific data for its employment. No remedial agent has been more thoroughly tested; its characteristics are most distinctly marked, and its *modus operandi* is sufficiently defined for all practical purposes.

That it acts both as a medicine, and, under certain circumstances, as a substitute for food, we are as reasonably assured of as of any fact in our professional experience.

Physiological experiments prove it to be, in certain doses, a deadly poison, and even the effects of long-continued small doses are unmistakably revealed by post mortem examination, if the diagnosis cannot sooner be made out.

Stillé and Maisch are excellent authority for the statement that "experiments and observations made to determine the mode of action of alcohol in the economy, have too generally referred to excessive doses rather than to such as are employed in dietetics and in medicine.

"Hence, a dispute has arisen, whether alcohol raises or depresses the animal temperature, when it is of daily experience that moderate doses augment the heat and excessive doses diminish it.

"In febrile disease, it is quite possible that the dose which in health would have been excessive, and even destructive of life, may, by limiting heat production, tend to preserve the tissues upon which life depends. If, as is altogether probable, this effect is due to a power in alcohol of stimulating the exhausted nervous

system, and thereby exciting the distended capillary blood vessels to contract, it is evident that less blood will reach the tissues, that less heat will be developed, and less waste of tissue result. The diminished waste is represented by the smaller amount of carbonic acid exhaled from the lungs, and of urea secreted by the kidneys. The special effect in a given case depends upon the dose and upon the time during which it has been operating. The primary effect may be stimulating, and be indicated by an increased activity of cerebration, but the secondary effect is the very opposite of this, and is accompanied by passive venous congestion. It is probable that alcohol produces febrile temperature by lessening the oxidizing power of the red corpuscles.

"The use of alcohol in every age, and by every nation in the world, demonstrates that it satisfies a natural instinct; that it literally refreshes the system exhausted by physical or mental labor; and that it not only quickens the appetite for food and aids in its digestion, but that it spares the digestive organs by limiting the amount of solid food which would otherwise be required."

Dr. Thomas K. Chambers, in his "Manual of Diet" says:

"It is in this arrest of secretion [from external circumstances—mental emotion acting on nervous system] that the sedative action of alcohol comes in as an anæsthetic, and prevents the effect of the nervous system upon the alimentary canal from being so deleterious as it has been shown naturally to be. A few teaspoonfuls of good strong wine or dilute spirit will often restore the lost power of taking food, and is an instinctive indulgence as a protective against the sundry blows inflicted on digestion by the exciting nature of social life in the present regimen of the world. It is possible to imagine a state of society—as among the Pitcairn Islanders, for example—where everybody was apparently the better for taking no alcohol in any form; but even in that instance the abstinence does not seem to have lengthened life, and it is certain that in Europe it would shorten it for many of our most active and useful citizens."

"The effect of alcohol on a healthy man would seem to be the diminution of the energizing wear of the nervous system, especially that employed in emotion and sensation. Thence there ensues a raising of the digestive powers and appetite, should they have been in any wise unconsciously blunted by the psychical movements above mentioned. Just as often, then, as the zest for food is so far lowered that it is found to be raised to the normal standard by the use of a little wine or beer with a meal, the moderate drinker is as much really better as he feels the better for his liquor. In cases, however, where the food is as keenly enjoyed without the aid of any of the products of fermentation, their consumption is certainly useless and possibly injurious. So long as alcohol, in the indirect mode mentioned, augments vital metamorphosis, it ministers to the force of the body; but it is not a source of force,

and its direct action is an arrest of vitality. If it has any effect at all on a healthy man, it can but weaken nerve power, while, at the same time, it lowers the bodily temperature, which contributes much to the capacity for muscular exertion."

"There is, however, another aspect to the question. Man must be viewed, not only as a possible victor, but as liable to the reverse fortune on the battle-field or in the struggles of life. Both sides cannot win. A healthy man who gets the worst of it in any way, whose intellectual or muscular energy goes down under the pressure of the work demanded, gets the worst of it in a less degree by the aid of strong drink. Give it to him when ready to perish from the drain on his nerve tissues, and his life is saved. The laborer, whose limbs are stiff with his day's toil, and the brain-worker who still more acutely feels the wear and tear of bread-winning, are not wasting the money they earn which they spend on a fair ration of beer or wine at their evening meal."

"The dietetic use of small quantities of alcohol tends to ward off morbid conditions which are secondary upon atonic dyspepsia; and therefore it may be credited with the prevention of anæmia, emaciation, premature old age from worry, melancholia, sleeplessness, and any other possible consequences of that form of indigestion, in a considerable section of the population."

"Our weaker brethren, 'slow stomachs'—as the poet, with anatomical precision, calls them—owe it to alcohol, and often to alcohol only, that their weakness does not become disease. Very likely the *dura mensurum illa* are better without it, so long as they continue tough; but how long is that in this age of feverish cultivation of the soul at the expense of the body? And ill indeed can the world spare many of those weaker brethren, who, without alcohol, would be wailing invalids instead of the pillars of the country."

"There is a quantity of fermented liquors, capable of being arrived at in each separate case by experiment, *par la voie d'exclusion*, which just succeeds in stimulating the appetite without flushing the face. Very small indeed that quantity is sometimes; yet it is an actual, measurable quantity, not infinitesimal. It has a genuine physiological effect, to be accounted for by its observed action on the nervous system, and missed when it is not taken. As to the use of alcohol in tubercle, if the morbid matter has broken down, and there is either nocturnal perspiration, copious purulent expectoration, diarrhoea, extreme emaciation, or depression of spirits, wine—especially port wine—in quantity equal to the occasion, is often of decided use. When the demand for it has passed away, it may be left off. The use of alcohol in fevers, is regulated by the condition of the nervous system. If there is great prostration of strength, or tremulousness of the hands, or quivering in the voice and respiration; if there is delirium of a low, muttering character when the patient is left quiet, then it is required; or if the patient is habituated to a full allowance, it is well to continue to give a little. A sharp, weak, unequal beat of the heart is a warning that some of these symptoms are likely soon to come on. All these indicate that the nervous system is feeling very sensitively the destructive metamorphosis going on, and has its power lowered by its sensitiveness. Then is the opportunity for the strong anæsthetic we are speaking of, which I order without scruple; though I do not view it, like food, as part of the necessary cure of fever."

Anstie, in his treatise on "Stimulants and Narcotics," speaks with especial emphasis of the "extraordinary way in which the healthy system (using this word comparatively) adapts itself, in some cases, to a diet composed chiefly or almost entirely of alcohol;" and he insists that "the concurrence of so large a number of observations" bearing on this point, "ought surely to produce a decided effect on the mind of any reasonable person."

As to the therapeutical branch of the question, the same authority is equally decided.

"The effect of alcohol," he remarks, "in arresting the convulsions of teething, is one of the most remarkable instances of a real therapeutical influence that can be witnessed."

"Excellent results have been obtained also, in some cases of tetanus, by the use of alcohol."

"In certain forms of rheumatic pericarditis, viz., those which are distinguished by great pain, sleeplessness, and jactitating movements of the limbs, especially when with this there is an inability to take beef tea and the like, nothing acts so favorably as alcohol in repeated small doses, the production of even the minor signs of intoxication being carefully avoided."

"In cases of acute neuralgia, it has happened to me several times to observe, that after large doses of various narcotics had been tried in vain, the first real and substantial relief was obtained by the use of a moderate dose of alcohol; and I have more than once experienced this kind of effect in my own person, when tormented with an unusually severe attack of neuralgia of the fifth nerve."

"The classical illustration, however," continues Anstie, "of the favorable suppurific influence of alcohol, is to be found in its use in low fevers, such as typhus and typhoid. Given a certain rapidity of pulse, we may nearly always assure ourselves, in cases of these diseases, that the patient will be unable to obtain natural sleep, but in place of this will pass into a state of either coma or delirium. Under such circumstances, it too often happens that meat, broth, etc., cannot be retained by the stomach; and it may happen, also, that they be retained by the rectum. There is nothing which meets the exigencies of this condition with an efficiency which at all approaches that of alcohol administered in repeated non-narcotic doses."

"The clinical fact is, that alcohol actually does support life in circumstances where it must, without such aid, sink from mere inanition."

"The effect of nutritious food, where it can be digested, is undistinguishable from that of alcohol upon the abnormal conditions of the nervous system which prevail in febrile diseases."

Let us turn next to H. MacNaughton Jones' "Remarks on Typhus Fever." He says:

"We may, I believe, as far as our present knowledge enables us to judge, conclude that alcoholic stimulants in fever are useful, to keep up the calorifying process, where the tendency (as in many cases of fever undoubtedly is the case) is to a great depression of temperature and consequent death (*vide* Carpenter, 488, 7th edition). In this condition of impending exhaustion, with low temperature and inability to generate heat, stimulants undoubtedly are our sheet anchor; and they enable us, when we see a patient threatened with a complete consumption of the normal body force, to elicit, by the powerful stimulus given to the nervous system, that which is latent in the system, and so to tide over a period of unusual demand which may prove too much for the overtaxed organs; thus we gain time, both for the exhibition of remedies, and also to administer true force-forming nutriment and support."

A German physician and chemist, Dr. Binz, has examined by the test of actual experiment, the question whether alcohol increases or diminishes the heat of the body; and therefore, whether it is a suitable remedy in febrile diseases. He comes to the conclusion that the heat is diminished by alcohol; his experiments having been made both on the lower animals and on man. He administered a certain quantity of pure alcohol mixed only with tepid water and sugar, to a strong healthy man, suffering from a joint disease, without inflammation. This was administered daily for several days, and the temperature was accurately noted, and it was also noted for seven days in which no alcohol was given. The result, as shown by curves, was that the administration

of the alcohol caused a most remarkable diminution of temperature. Experiments on rabbits led to the same result, but in that case the animals were placed in an artificially feverish condition by having some ichor or putrefying blood injected under their skin. Under these circumstances a condition is caused resembling typhoid fever in the human subject, and the animal expires in a few days. But this event does not ensue if, simultaneously with the experiment, alcohol diluted with water is administered either by the stomach or under the skin. The analysis of such experiments shows Dr. Binz a three-fold action produced by the alcohol: (1) The diminution of the heat of the body; (2) reduction of the putrid processes; and (3) increase of the action of the heart. Thus it is proved that the supposed rise of temperature in the blood by means of alcohol has no existence, and that the apparent heat in such a case, as well as the apparent cold in an aguish patient are only subjective phenomena. Alcohol, again, may be expected to diminish the metamorphosis of the tissues, because, if it lowers the combustion, it may be supposed to decrease the urea and the carbonic acid, and the researches of several authors prove that such is the case.

One of the most elaborate and exhaustive expositions of this subject is that presented by Dr. Alfred Carpenter, in his address on "alcoholic drinks as diet, as medicine, and as poisons," delivered before the medical society of London.

"Every medical man in extensive practice," he says, "must have seen cases, which now and then have fallen to my lot to witness, in which life has been prolonged for many months without any other nourishment than that which was contained in the spirituous liquors or wines which the patient would alone consume."

After minutely explaining the pathological action of alcohol, when taken beyond the limits of real moderation, i.e., in no larger quantities, necessarily, than are habitually imbibed by the most prudent of so-called "moderate" drinkers, Dr. Carpenter continues:

"So far the effect of alcoholic drinks seem to be for evil and not for good; and some persons ask very pertinently why they should be retained at all in the pharmacopoeia as therapeutic agents, when other stimulants might be used with as much advantage in those cases in which they appear to be required; but so powerful a means to evil, like every similar thing, may be used beneficially, if used aright. There are conditions of the body in which it performs a duty more satisfactorily than any other stimulant. It seems to preserve the body from decay, performing a vicarial duty, being sacrificed itself, and so saving the patient's life. It interferes with the normal changes which are required for the continuance of health, and retains the products of tissue change in the blood; but in certain forms of disease, when the blood is rendered impure by the retention of those matters which should be excreted, if the retention have not been caused by alcohol, and great heat be developed in consequence of the combustion or oxidation of such matters, alcohol seems to take the place of those of the tissues which are oxidizing, it lessens temperature and saves the fabric from death. This effect is seen most frequently in some zymotic forms of disease; there is a great tendency to sloughs and bed sores, which tendency is materially diminished in those who have had alcohol administered, as compared with those who have not.

"The therapeutical effects of alcohol, when administered in certain typical forms of fever, are most marked. The cases which require it are those in which there are a dry tongue and skin, no nausea, and no indication of cerebro-spinal lesion. If there be any indication of the latter, with a moist tongue, stimulants universally do more harm than good, because the tendency is then to increase the congestion upon which the lesion depends. When a case is benefited by alcohol, there are soon produced a lessened temperature, a slower pulse, a moister tongue and a quieter condition of the system generally."

"The cases in which the temporary administration of alcohol may be useful are those in whom the surface of the body has been chilled, and in whom the powers of life are weakened in such a manner that the heart is unable to do its work of propelling the blood to the capillaries with its usual ease. The action of alcohol in these cases acts something like taking off the pendulum of a clock; the spring is able to work so much faster, and to get over an extra amount of beats in the same space of time. Internal congestion, irregular circulation, so to speak—fullness in one place, with unfilled cutaneous capillaries, are cases in which alcohol may be exhibited with immediate advantage. The tension of the capillaries being overcome, there is a diminution of the impediment to the flow of blood, and, as a sequence, a possible diminution of the internal congestion. So, if the action of the heart itself be too weak to overcome the tension of vessels, we may induce a kind of vaso-motor paralysis to enable it to do its work more easily for the time being and get over a passing difficulty in that way. How far it is prudent to push this vaso-motor paralysis for any length of time is another matter, as a continuance of it must lead to the first stages of tissue-change, which then becomes itself of primary importance.

"There is a class of persons to whom alcohol may be useful even in comparative health. When the powers of life begin to decay, when the force of the heart is not sufficient to transmit the blood to the extremities of the body, and the aged person feels the influence of cold, the blood scarcely passes through the unfilled cutaneous capillaries by dilating them and diminishing their tension the heart is relieved and the functions of the skin and the other organs are more efficiently performed. A moderate dose of alcohol taken with food is always beneficial to an old person under such circumstances, and I cannot see any reason why it should not be administered. Again, there are conditions sometimes present in youth in which alcoholic drinks also are useful; no other kind of stimulant acts so equally and so satisfactorily; there are a few cases—and a very few only—in which they may be administered in middle age; taken as a whole, a weak heart with unfilled cutaneous capillaries will be also found in those cases in which it is likely to be beneficial. The stethoscope most clearly reveals them, the impulse of the heart and the general rhythm of the pulse not at all corresponding."

T. Lauder Brunton, in a paper on "the physiological action of alcohol" maintains the following positions:

"Alcohol, in small quantities, increases the secretion of gastric juice and the movements of the stomach, and thus aids digestion. Although unnecessary in health, it is useful in exhaustion and debility.

"It increases the force and frequency of the pulse, by acting reflexly through the nerves of the stomach.

"After absorption into the blood, it lessens the oxidizing power of the red blood corpuscles. This probably renders it useful in reducing temperature. When constantly or very frequently present in the blood, it causes accumulation of fat and fatty degeneration of organs.

"It causes combustion in the body, maintains or increases the body heat, and prolongs life on insufficient diet; it is therefore entitled to be regarded as a food.

"It dilates the blood-vessels, increases the force and frequency of the heart by its action on the nervous centres to which it is conveyed by the blood, imparts a feeling of comfort and facilitates bodily and mental labor. It does not give additional strength, but merely enables a man to draw upon his reserved energy. It may thus give assistance in a single effort, but not in prolonged exertions."

The same is the case with the heart; but in disease alcohol frequently slows instead of quickening the pulsations of this organ, and thus economizes instead of expending its reserve energy."

"By dilating the vessels of the skin, alcohol warms the surface at the expense of the internal organs. It is thus injurious when taken during exposure to cold, but

beneficial when taken after the exposure is over, as it tends to prevent congestion of internal organs."

M. Jalliet affirms that the blood mixed with a certain quantity of alcohol in presence of oxygen, transforms alcohol into acetic ether, and that the blood globules, as has been stated by Pasteur, is a ferment cell which carries on in an alkaline solution the same process as the yeast of beer. Oxygen absorbed by the hæmoglobin passes to the state of nascent or active oxygen, which is able to oxidize promptly and totally all the alcohol which enters the blood current. His conclusions are:

"1. Alcohol ingested by the stomach is in part decomposed by the natural ferments with which it immediately comes in contact (the gastric juice, saliva, pancreatic juice, etc.) aided by the mysterious and destructive action of the liver. From this organ the alcohol passes in venous blood to the lungs, where it is widely diffused, a small quantity eliminated in the natural state, but the principal part is transformed into acetic ether. Finally the oxidation of the alcohol is accomplished in the systemic circulation where the acetates formed are totally burned.

"2. When alcohol is absorbed after subcutaneous administration, the conditions are changed. The alcohol immediately enters the systemic circulation, arrives at the heart, then the lungs, and as it reaches these organs quickly and in large quantity, it is freely eliminated, as shown by MM. Perrin, Duroy and Lallemand. Administered subcutaneously, there can be no action of the ferments of the organism; the liver does not affect the disintegration, for the alcohol has meanwhile been imbibed by all the tissues, and is diffused generally, without having been subjected to any modifying influences.

"3. Alcohol is a substance which arrests respiration by preventing hæmatosis; in a word, alcohol asphyxiates without being in itself a poison. In the process of its transformation into acetic acid alcohol utilizes the oxygen being conveyed to the tissues by the blood globules, and it thus diminishes combustion in the body. This fact explains its antipyretic action. Death by alcohol is an asphyxia by carbonic acid, and we have found in animals and in man all the symptoms and the anatomical conditions of this asphyxia. It can thus be readily comprehended why alcohol, in the form of vapor, is so much more dangerous than alcoholic drinks, and produces so much more rapidly serious symptoms of poisoning."

Numerous statements to the same general purport might be quoted also from American authorities. Professor Nickels, for instance, says:

"The utility of alcohol in fevers is less dependent on its antipyretic power than on its food value. By experiments of the most searching kind, performed by many of the most competent observers, it has become established beyond a shadow of doubt that alcohol, like the carbohydrates, starch and sugar, is consumed in the body. Thus by its oxidation or combustion, it subverts all the purposes of certain kinds of food. When the enfeebled fever patient is unable to take ordinary food, or if he takes it is unable to digest it, and hence, day after day, becomes more exhausted, alcohol is the only agent which can meet the indications. It rapidly enters the blood—as it does not, like ordinary food, require to be digested; and then immediately enters upon its important mission, sustaining life and strength until the customary food can again be digested and assimilated."

And Roberts Bartholow more precisely defines his views as follows:

"There can be no question regarding the utility of alcohol in the adynamic state in fevers and in inflammations. The two conditions demanding the administration of alcohol are indigestion and failing heart. It is rare indeed that more than two ounces of wine or an ounce of whiskey is required, even in the most pronounced adynamia. If this do not stimulate the stomach to better work, or itself furnish needed force to the failing heart, a larger quantity can do no more. Graves formulated some admirable rules for our guidance in the

use of alcoholic stimulants in fevers. Alcohol does good when the tongue changes from dry to moist, when the stomach can receive and digest more food, when the pulse declines in rapidity and gains in force, when the surface grows moist and cool from hot and dry, when the delirium ceases and an expression of intelligence replaces blank stupor."

"The power of alcohol," says the same writer, treating of its application in another sphere, "to coagulate albumen, to suspend the activity of the unorganized ferments, and to destroy minute organisms, lies at the foundation of its external uses. It is a most efficient hæmostatic to restrain bleeding from wounded surfaces. As an antiseptic dressing to wounds, to prevent the entrance of the germs of putrefaction, to check suppuration and to promote healing, it has scarcely been inferior to the much-vaunted carbolic acid. It is an efficient means for procuring local refrigeration of an inflamed joint or swelling. Injected under the skin in the neighborhood of painful nerves, it has no inconsiderable anodyne power. This property may be utilized for the relief of myalgia and lumbago. It is more efficient than water, used by the method known as acupuncture. Enlarged tonsils, hypertrophied thyroid and glandular swellings, may often be slowly reduced and made to disappear by the parenchymatous injection of alcohol. This method is also applicable to the treatment of uterine fibroids."

It has long been a favorite assumption with extremists on this question—those who in their mistaken zeal would fain wrest this potent weapon from the hand of the physician—that alcohol is always and everywhere merely a *manufactured* product, of which Nature knows nothing, and whose presence she utterly abhors. This position, it is now ascertained, has just as little foundation in truth as the more practical assertions already dealt with.

Dr. A. C. Muentz has recently instituted novel and reliable experiments, which prove beyond doubt the quite universal existence of alcohol in more or less quantity in Nature's laboratory, even the atmosphere we breathe containing it in quantity appreciable to his delicately contrived tests.

Nay, more—the bodily organs of the most determined total abstainer contain a certain quantity of this much-abused substance, and are constantly engaged in its elaboration.

In the economy of Nature, therefore, alcohol subserves a purpose, and surely nothing, either in science or morals, can be rightly alleged to forbid its occasional employment for the benefit of suffering humanity.

We must bear in mind, however, that it can be so employed only by observing the same principle of *strict individualization* which should govern us in the selection of any other means—hygienic, dietetic or medicinal. Nor is the application of that principle, in the case of alcoholic preparations, so difficult as might appear from the careless and indiscriminate manner in which this class of agents is commonly administered. No doubt most of the hospital patients, by whom such enormous quantities of wines and liquors are regularly consumed, would do much better without their dangerous and ill-understood assistance. But is it not possible to lay down rules and suggest precautions by which they might be made to serve as valuable medicines, with no more peril to the patient than results from the employment of many other toxic agents, under the guidance of therapeutic precision?

Believing that but one answer to this question can be given by any unprejudiced physician who acknowledges law and strives faithfully to obey it, we have endeavored to do something in the direction indicated, by throwing together a few hints and observations of our own founded upon careful study of the most recent authorities, and which, if not themselves decisive of the points in dispute, may at least suffice to show that a scientific settlement thereof is by no means impossible.

We fail to find in our literature on this subject those clear indications which would enable intelligent discrimination in its use, although it is shown beyond reasonable doubt that in small doses it is a stimulant, and in large ones a narcotic. In our experience, the question of dose has proved an important factor in its selection in disease.

We have also found that the various combinations in which alcohol is found associated require careful study and individualization, and we cannot agree with the inference of Dr. Richardson, that it is the *water*, and not the alcohol and other ingredients of the admixture, which is alone to be credited with the power of sustaining life, or of giving that impetus which nature requires to enable her to stem the tide of disease and to advance in the direction of recovery.

It is a well-known fact that distilled alcoholic liquors produce influences upon the sensorium quite at variance with those articles which are the product of fermentation, and this fact should not be lost sight of in our study.

While brandy, whiskey and the like excite belligerency, etc., in those who imbibe them too freely, it is equally well known that wines, ales, etc., even when taken in sufficient excess to produce inebriation, excite an entirely different condition of the sensual faculties.

The poor wretches given up to absinthe-drinking suffer from a peculiar train of nervous symptoms, the most prominent of which is epilepsy of a remarkably severe character. The last moments of the absinthe-drinker are truly horrible. M. Voisin records a case in which a man was picked up in the public street, in an epileptic fit. He was known to be a large consumer of absinthe. The convulsions lasted until death—four days and four nights.

Action and reaction are important elements in our consideration of the dose, and repetition should not be practiced until the full effect of the previous one has exhausted itself.

The dose should never be large enough to aggravate the disease, and under no circumstances should it be sufficient to cause the unpleasant symptoms which are sure to follow under certain circumstances.

There is a great difference in individuals as to their susceptibility to the effects of alcoholic preparations, and the susceptibility of the same individual will vary at different times.

For instance, we have found the most sensitive organism which, under ordinary circumstances, could not bear the smallest amount of alcoholic stimulant, to be able, during the course of an attack of diphtheria, to bear an enormous quantity with impunity, with results most satisfactory; and this effect is not confined to a single disease!

It is in these exhausting affections that we are able to observe the wonderful sustaining powers of alcohol, and it should be exhibited by the conscientious physician without prejudice, and in a manner to obtain the desired end.

These are the circumstances which have gained for this agent its position in our dietary tables. We very much doubt that it possesses much value as food, but we believe rather that it stands in the position of a *substitute*, thereby answering the purpose of a nutrient when the organism is in a condition in which absorption and assimilation are either or both at fault, or when, during the course of exhausting disease, a sufficient quantity of food cannot be taken, thereby risking a fatal inanition.

CASE OF FICTITIOUS HIGH TEMPERATURE.—Dr. Stephen Mackenzie reports a case in a *neurotic* woman, age 42, in whom the temperature rose to 120. The patient subsequently acknowledged that she had caused the high temperature by poultices, hot bottles, etc., which she used with sufficient cleverness to elude the vigilance of her attendants.—*Med. Times and Gazette*, Nov. 5.

REFORM IN MEDICAL EDUCATION.

By E. R. CORSON, B.S., M.D., SAVANNAH, GA.

The last few years have made us painfully conscious of glaring defects in our system of medical education. Recent events have shown us that efforts must be made to better our schools and requirements. The disclosures of Buchanan, the illegal practicing all over the country, the preying on the public of quacks and itinerant "Doctors," and the thousand and one means used to make money on the plea of medical treatment, have shown us a condition of affairs calling for serious consideration. Every spring the papers call attention to the "Doctor mills," and the mass of crude material thrown on our country, to see to the medical wants of its citizens. We are frightfully overrun with Doctors; a title which should mean so much often means nothing, or worse than nothing; a profession which has the highest mission is injured, not to say often disgraced, by many who are admitted into its ranks almost without any selection or care.

It may be easy to see the causes of this evil, but it is far from an easy matter to remedy it. Evils which are the growths of years, which grow with the country and become a part of its fabric, are not remedied in a day or a year.

Much is an outgrowth of our system of government. We are sometimes made to suffer for our "Liberty and Equality." A state of general laxity, impossible in countries like Germany and England, can easily exist here. This lax condition shows itself in the great number of little mushroom schools, which have sprung up all over the country, bearing the most pretentious titles, and utterly lacking the first elements necessary for a school. We are fond of big names; there is hardly a State which has not more "universities" than any country in Europe. Charters are granted, endowed with great privileges and rights, on the flimsiest bases. Boards of trustees and faculties are organized as ignorant of their functions as they can well be. Men imagine they can teach, who not only lack the education and knowledge, but have had no training as teachers. No requirements are necessary for admission, and the material is as crude as can well be imagined. In the short time of two years, men are graduated with the title of Doctor, who are utterly incompetent to practice their profession. Their degree to the public at large means as much as the degree from a respectable school, and they are permitted to practice with all the rights and privileges of those who have passed through a proper curriculum.

But even our best schools are not free from many of these evils. There is not an institution so endowed as to be wholly independent of students' fees; some of our best schools are largely dependent upon the patronage of their students. This dependence is an unfortunate position, and is the source of many errors of organization and instruction. Preliminary requirements, with the exception of the Medical School of Harvard University, amount to little or nothing. This is one of the greatest defects in our medical system. Young men have set before them courses of lectures to which they are in no way adapted. To derive the full benefit of lectures requires a special training, and a mental attitude only acquired by previous study and experience. There is no form of instruction more difficult to fully grasp, and yet young men are expected to listen to a number of lectures in succession on widely different branches, and to derive from them the necessary understanding and benefit. This insufficient preliminary training is the great defect of our entire system of education, medical and otherwise. It is our primary and preparatory schools which need reconstruction, and the proper superstructure will follow. This it is which makes the German system so strong. Billroth, in his exhaustive and voluminous work "On the Teaching and Learning of the Medical

Sciences in the Universities of the German Nation," has shown the full force of this German system, and the necessity of what he calls the "Gymnasialbildung" as preliminary to the University instruction.*

Our course of study is much too short. Two years are absurdly insufficient, and but a fraction of the year at that. In Austria five years are necessary; in Prussia, France and England, four years are demanded. And yet we, with our imperfect methods and requirements, ask but two years!

There are grave defects in our system of examinations. The hasty oral examinations at the end of the course, for which the student has "crammed" a short time before, are not only ineffective, but wholly at variance with the true spirit of a University or College.

What has been done to remedy this state of affairs?

Since 1850 efforts have been made to lengthen the course of study with a grading of the classes, and annual examinations for each class. "In 1850 the Chicago Medical College, now the medical department of the Northwestern University, was organized for the express purpose of testing the practicability of establishing a school with a thoroughly graded and consecutive system of instruction. Its curriculum was made to embrace thirteen professorships, arranged in three groups, one appropriate for each of the three years of study required."

The very satisfactory success of this institution during the past fifteen years and its present prosperity certainly demonstrated the practicability of the scheme.†

In 1871 the Medical School of Harvard University adopted a graded system of instruction, dividing her classes, and extending her courses throughout the collegiate year—a plan which, as shown by the Annual Report of the President and Treasurer of Harvard College for 1880-81, has proved its success by the increased number of students and the universally recognized high standing of the school. Students will feel that a Harvard diploma is worth the extra time and application. Since then other colleges have instituted a graded course, and while it may not have been made compulsory, many take it, appreciating its superiority. It is to be hoped that the Bellevue Hospital Medical College, whose strong faculty and fine clinical resources have given it an enviable reputation, may still adhere to its plan, instituted in 1870, of an obligatory graded course of three years, with preliminary and annual examinations, independent of the final one for the Doctor's degree. The authorities' acknowledgment of inability at present to continue this obligatory three years' course was unfortunate, to say the least, but was a natural outcome of this dependence of an institution upon the patronage of its students.

The Medical School of Harvard University made another great step forward when it increased the requisites for admission. I quote the following from the "Ninety-second Annual Catalogue for 1874-75":

"In and after September, 1877, all students seeking admission to the Medical School must present a degree in Letters or Science from a recognized college or scientific school, or pass an examination in the following subjects:

"1. Latin. The translation of easy Latin prose; French or German will be accepted, however, as a substitute for Latin.

"2. Physics. Candidates will be required to show such a knowledge of this subject as may be obtained from Balfour Stewart's *Elementary Works on Physics*.

"The examination will be conducted in writing, and in judging the work of the candidates the spelling, grammar, and construction will be considered.

"Graduates in medicine will not be required to pass this examination on joining the school. April, 1875."

The Cornell University has, since its beginning instituted a four years' course in Natural History leading to

* Ueber das Lehren und Lernen der Medicinischen Wissenschaften an den Universitäten der deutschen Nation, nebst allgemeinen Bemerkungen über Universitäten. Eine Culturhistorische Studie von Dr. Th. Billroth, Wien, 1876, p. 139, *et seq.*

† Contributions to the History of Medical Education and Medical Institutions in the United States of America, 1776-1876. Special Report prepared for the United States Bureau of Education, by N. S. Davis, A.M., M.D., Washington, 1877, p. 48.

the degree of Bachelor of Science, as a course especially adapted to those intending to become naturalists and physicians. I quote the following from the Cornell University Register, 1881-82:

"The Faculty believe that the crowded and difficult curriculum of the medical schools should be preceded, when possible, both by a broad general education, and by a special and practical training in certain branches. They, therefore, strongly advise those who intend to become physicians to pursue some one of the full courses, and then become resident graduates, reviewing physiology and chemistry, attending the lectures in Veterinary Science, and taking laboratory work in chemistry and anatomy.

"When only four years are available, the courses in Natural History, Science, and Science and Letters afford more or less time for laboratory work, especially in the fourth year.

"In case the student can remain but two years, he is advised to take the two-year course preparatory to the study of medicine, which enables him to enter the branches best calculated to serve as the basis of a proper medical course."

This two-year course is laid out as follows:

FIRST YEAR.

First Term.—French, free hand drawing, experimental mechanics and heat, zoology, lectures and laboratory work (vertebrates), human physiology, hygiene.

Second Term.—French, electricity and magnetism, clinical lectures, chemical laboratory practice, zoology, lectures and laboratory work (invertebrates).

Third Term.—French, acoustics and optics, chemistry, lectures, botany, lectures and laboratory work.

SECOND YEAR.

First Term.—German, organic chemistry, anatomy, physiology and hygiene of domesticated animals, anatomical technology; anatomy, laboratory work; psychology.

Second Term.—German; vegetable physiology; veterinary pathology, parasites, and sanitary science; vegetable physiology, laboratory work.

Third Term.—German; medical chemistry; comparative anatomy of the brain; anatomy, laboratory work; museum methods and experimental technology; veterinary medicine and surgery.

Such two years of preparatory work will prove of great benefit to the medical student, and give him a great advantage over those who have not had any preliminary scientific training.

All this shows absolute progress and gives us just reason to look for a thorough improvement in the near future.

In 1880 an act was passed in the State of New York requiring every person practicing physic and surgery in the State to register in the clerk's office of the county where he or she intends to practice physic and surgery, his or her name, residence, and place of birth, date of diploma, and the name of the institution granting it.

A similar Registration Act was passed in Georgia, Sept. 28th, 1881.

This is a measure which will be universally adopted in this country. It will protect the people against illegal practitioners and those practicing without diplomas, and will place in the hands of the proper authorities a correct record and register of all physicians practicing in the State.

In a paper by Dr. Frederic R. Sturgis, entitled "Hints and Suggestions for Reform in Medical Education," read at the meeting of the Medical Society of the State of New York, February 7, 1882, the author advocates the importance of some State supervision in medical education, the separation of the right to practice from the diploma, and the establishment of a State Board of Examiners. He suggests that "This power might very properly be vested in the Board of Regents of the University of the State of New York in accordance with the law passed May 16, 1872, Chap. 746, R. S., and amended July 26, 1881, Chap. 679, laws of 1881, with the cooperation, if so desired, of the State Medical Society.

"Before this tribunal all candidates for the right to practice medicine or surgery in the State of New York

must come for authority and license so to do, no matter at what school he or she may have studied."

The objections of uniting teaching and the power to grant licenses have been long recognized, and we find as far back as 1839 a resolution adopted by the Medical Society of the State of New York, reading as follows:

"Resolved, That the right of teaching ought to be separated as much as possible from the power of conferring degrees or license."*

In 1799 the Medical and Chirurgical Faculty of the State of Maryland was invested with power to elect "by ballot, twelve persons of the greatest medical and chirurgical abilities in the State of Maryland," whose duty it was "to grant licenses to such medical and chirurgical gentlemen as they, either upon a full examination or upon the production of diplomas from some respectable college, may judge adequate to commence the practice of the medical and chirurgical arts."†

There is no lack of evidence to show that many and strenuous efforts were made to remedy the want of State supervision and control, and the evils of uniting the teaching and licensing rights. But they proved ineffective, and the reason was that there could not be any union in the movement. Each institution or State was afraid to make the first step for fear of losing its patronage; and here came in the evils of unendowed institutions dependent upon students' fees. They could not say, "we don't care if the number of our students fall off; our ambition is to improve our standard and methods of instruction, and we shall take whatever steps we think conducive to that end." No, they were dependent, and their students knew it.

The formation of a State Board of Examiners accomplished, then, three important requirements: the examining right is shared by, and subject to, a board distinct from the faculty or teaching body; the license to practice is separated from the degree; and, finally, the practice of medicine and surgery is placed to a certain extent under State supervision and control. Few, I think, will fail to see the advantages of such an arrangement. Our republican government and life are apt to make us chary of anything indicating State control; but the extreme in this direction is worse than the other extreme. In this case the State will be simply protecting its citizens against illegal and incompetent physicians.

To study a system of education entirely under Government control we must turn to Germany. "Until 1725 there existed in Prussia no restrictions in the practice of doctors of medicine graduated from any university of the Christian West. Whether at that time great laxity in the granting of the medical degree of doctor had spread, or that the Prussian physicians desired protection against competition from outside, there resulted on September 27, 1725, an ordinance, in accordance with which the masters of medicine (*Magister der Heilkunde*) were first permitted to practice when they had presented, after an anatomical *cursus*, the elaboration of a '*casus medico-practicus*' in Latin before several members of a superior *Collegium medicum* and *Collegium medico-chirurgicum*, who were appointed by the government as the highest medical court (*Medicinal-Behörde*). This was the beginning of the Prussian *Staats-Examen*, which was afterwards introduced into many other German countries, and historically based upon the final university Doctor-Examen, whose second half it, to a certain extent, formed. Thus the State really took from the faculties the right of conferring a license to practice (*Praxisertheilung*); yet only partially, as the faculty examination always preceded. This remained the same in principle 144 years, until the Examination Regulation of September 25, 1869, for the physicians in the North German confederacy who had the right to emigrate without taxation (*freizügig*). The above mentioned origin of the

Staats-Examen was, however, already completed in 1789 and 1791, by an examination in German 'on the most important branches of medicine.' In 1798 was added the practical clinical course. Thus this examination became a repetition and amplification of the *Doctor-Examen*."*

Here we have the origin of the *Staats-Examen*, which forms such an important factor in the German system of education. Its requirements and the powers invested in it were in keeping with the form of government. While the long course of study at the university, with its vigorous final examination would seem to have rendered unnecessary any further measures to secure competent and thoroughly educated practitioners the authorities saw fit to impose this further requirement. While it may have certain defects and may be to some extent unnecessarily severe, it has proved a most important factor in establishing the universally acknowledged superiority of the German system of education.

While I do not believe we should exactly copy from Germany, there is much that we can appropriate and adapt to our own wants as a country and nation. We must develop our own system of education to meet our own special wants.

This establishment of a State Board of Examiners corresponds to a certain extent to the *Staats-Examen*. There are no doubt many difficulties to be overcome in its organization and construction; and some time will be required before it becomes entirely adapted to our own needs. The proper selection of the men who are to constitute these boards is a most difficult matter. And then the care necessary to keep a proper relation and harmony between the university faculties and the boards. It is just here, as pointed out by Billroth, that errors have crept into the German system. Students well prepared to pass the faculty examination find themselves unable to do equal justice to the State examination from differences in the knowledge and views of the examiners. Such errors can only be remedied by time and experience. It is to the State of New York that we should naturally look to make the first move in this medical reform, and if fully established there, its general establishment in this country would be but a matter of time.

Dr. H. M. Paine, Dr. F. R. Sturgis, Dr. Bailey, the late Dr. Gray, and others, have drawn up two bills relating to the examination of candidates for the degree of Doctor of Medicine, and the licensing of physicians and surgeons, copies of which, through the kindness of Dr. A. K. Hills, I have been permitted to examine. Whether they are in the exact form intended by the authors, or whether they are still to be modified, I cannot say. They impress me so favorably that I give them in full as they stand.

AN ACT to amend chapter seven hundred and forty-six, of the laws of eighteen hundred and seventy-two entitled "An Act relating to the examination of candidates for the degree of Doctor of Medicine, and the acts amendatory thereof."

SECTION 1. The several sections of chapter seven hundred and forty-six, of the laws of eighteen hundred and seventy-two, entitled "An act to regulate the examination of candidates for the degree of Doctor of Medicine" are hereby amended as follows:

"1. The regents of the University of the State of New York shall have power to appoint as many State Boards of Examiners in Medicine as they shall find necessary, none of the members of which, while serving in the capacity of medical examiners, shall hold official positions in any medical school or college; each board to consist of not less than seven members, who shall have been licensed to practice physic and surgery in this State, five of whom shall constitute a lawful board for the purpose of examining candidates for the degree of Doctor of Medicine, or for license to practice medicine or surgery in this State.

"2. Such examinations shall be in surgery, anatomy, physiology, pathology, chemistry, clinical medicine, obstetrics, materia medica,

* Davis, op. cit., p. 47.

† Davis, op. cit., p. 51.

* Billroth, Op. cit., p. 156.

and therapeutics, and such other branches in the several departments of medical science as may be required and established from time to time, by said Board of Regents.

"6. The regents of the university on receiving the aforesaid reports of the examiners, and on finding that not less than five members of a board have voted in favor of a candidate, shall issue to such person a diploma conferring the degree of Doctor of Medicine of the University of the State of New York, which degree shall be a license to practice physic or surgery; and, if said person shall have previously received the degree of Doctor of Medicine, in that case, a license to practice physic or surgery in the State of New York.

"7. The candidate, on receiving said diploma or license, shall pay to the University the further sum of not less than ten dollars.

"9. Said Board of Regents shall, from time to time, establish, ordain, and approve all rules and regulations for the government and procedure of said boards of medical examiners, as they may deem necessary to insure the faithful execution of the provisions of this act; and may, in their discretion, issue such prizes or certificates of merit, graded or otherwise, as they may deem just and expedient.

"10. The regents of the University may, at their discretion, convene meetings of the members of the several boards of medical examiners, or representatives thereof, and such other persons as may be desirable, in connection with the annual University Convocation, or at other times, for the purpose of consultation, devising and applying the best methods for promoting and regulating medical education and practice in this State."

SEC. 2. All acts or parts of acts inconsistent with this act are hereby repealed.

SEC. 3. This act shall take effect immediately.

AN ACT to amend chapter five hundred and thirteen of the laws of eighteen hundred and eighty, entitled "An act to regulate the licensing of physicians and surgeons."

SECTION 1. The several sections of chapter five hundred and thirteen of the laws of eighteen hundred and eighty, entitled "An act to regulate the licensing of physicians and surgeons," are hereby amended as follows:

The first section is hereby amended as follows:

SEC. 1. After the first day of September, one thousand eight hundred and eighty-two, no person shall be licensed or admitted to practice medicine or surgery within this State except upon a written examination required by chapter seven hundred and forty-six, laws of eighteen hundred and seventy-two, and acts amendatory thereof; and after the time aforesaid, the board of regents of the State of New York shall have sole power to issue and grant licenses to practice medicine or surgery within this State, and to determine and certify to the validity and standing of diplomas and licenses issued by medical schools or colleges, or State boards of medical examiners of other States, which diploma or license thus certified to by said board of regents of the University, shall exempt persons holding them from the provisions of chapter seven hundred and forty-six, laws of eighteen hundred and seventy-two, and acts amendatory thereof.

The second section of said act shall read as follows:

SEC. 2. All persons who shall enter upon the practice of physic or surgery in this State, after the first day of September, eighteen hundred and eighty-two, who have not previously to that time received the degree of Doctor of Medicine from some medical school or college duly chartered under the laws of this State and authorized to grant diplomas and confer such degree are hereby required, before entering upon the practice of physic or surgery within this State, to submit to the examination provided for by said chapter seven hundred and forty-six, laws of eighteen hundred and seventy-two, and obtain from the regents of the University the diploma or license therein required.

The second section of said act is hereby changed to section third, and to read as follows:

SEC. 3. To entitle any person to enter upon the practice of medicine or surgery within this State, after the first day of September, eighteen hundred and eighty-two, said person having obtained the degree or license required by the second section of this act, is hereby further required to register said degree or license in the office of the clerk of the county where such person intends to practice physic or surgery, in a book to be kept by said clerk,

together with the name of the person so registering, his or her place of birth, residence, date of the diploma or license, and the name of the degree which it confers, which registration in the form of an affidavit shall be subscribed to and verified by oath or affirmation before a person duly qualified to administer oaths under the laws of this State, for which service said county clerk shall receive a fee of twenty-five cents for such registration, to be paid by the person so registering; and it is further enacted that the provisions of this section shall not apply to those who shall have effected a lawful registration prior to the first day of September, eighteen hundred and eighty-two, in pursuance of the requirements of chapter five hundred and thirteen, laws of eighteen hundred and eighty, and chapter one hundred and eighty-six, laws of eighteen hundred and eighty-one; and it is also further provided that in case said person shall remove, whether transiently or permanently, from one county to another within this State, the registration previously described must be repeated in each and every county in which said person intends to enter upon the practice of physic or surgery. This provision, however, is not intended to restrict or interfere with consultations or legitimate practice among legally qualified resident physicians, but to those itinerant persons passing from county to county, who have no permanent residence in the counties where they engage transiently in the practice of physic or surgery.

The third section of said act is hereby changed to section four, and to read as follows:

SEC. 4. A person who shall wilfully swear falsely to any statement contained in the affidavit required by the third section of this act, shall be deemed to be guilty of and subject to conviction and punishment for perjury; and a person who violates any of the other provisions of this act, or who shall practice physic or surgery under cover of a diploma or license illegally obtained, shall be deemed to be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than two hundred and fifty dollars, nor more than five hundred dollars for the first offence, and for each subsequent offence by a fine as aforesaid, and by imprisonment for not less than thirty days, nor more than six months; the fine, when collected, shall be paid, one-half to the person or corporation making the complaint, the other half into the county treasury.

Section four of said act is hereby changed to section five, and to read as follows:

SEC. 5. All persons, on coming from other States, before entering upon the practice of physic or surgery in this State, who have not received the degree of Doctor of Medicine on the recommendation of State boards of medical examiners, similar in grade and standing to those created and established under the provisions of chapter seven hundred and forty-six, laws of eighteen hundred and seventy-two, and acts amendatory thereof, are required to submit to the examination provided for by said act; and all persons on coming from other States, who have received the degree of Doctor of Medicine, or a license to practice medicine or surgery on the recommendation of State boards of examiners in other States, similar in grade and standing to those created and established under the provisions of said law of eighteen hundred and seventy-two, are entitled to receive a license to practice medicine or surgery in this State without further examination.

SEC. 6. The fifth section of chapter five hundred and thirteen, laws of eighteen hundred and eighty, is hereby repealed.

SEC. 7. For the purposes of this act the words "practice physic or surgery" shall mean to prefix to one's name the word "Doctor," or the abbreviation "Dr.," meaning thereby doctor of medicine, or to annex the letters "M.D." thereto, or to suggest, recommend, prescribe, employ, use, or direct for the use of any person any drug, medicine, appliance, apparatus or other

agency, whether material or immaterial for the treatment, cure, relief, or palliation of any real or supposed ailment or disease of the mind or body, or for the treatment, cure or relief of any wound, fracture, or other bodily injury or any bodily deformity.

Section six of said act is hereby changed to section eight, and to read as follows;

SEC. 8. Nothing in this act shall impair or effect any license or diploma lawfully granted and issued to any person, according to the laws of this State, before the first day of September, eighteen hundred and eighty-two, or at any time to commissioned medical officers of the United States army or navy, or of the United States marine hospital service, or to under graduates who may be appointed members of a hospital or dispensary staff, during their term of service.

SEC. 9. So much of chapter five hundred and thirteen, laws of eighteen hundred and eighty, chapter one hundred and eighty-two, laws of eighteen hundred and eighty-one, and all other acts and parts of acts inconsistent with this act are hereby repealed.

SEC. 10. This act shall take effect on the first day of September, one thousand eight hundred and eighty-two.

The question naturally arises as to the treatment of the different sects. Dr. Sturgis, in the paper above mentioned, says: "As regards the different sects in medicine there is but one branch, to wit: of therapeutics, where there is any difference of opinion; in the branches of anatomy, physiology, botany, chemistry, pathology, etc., etc., they are one; these are equally necessary and are the same for the homœopath and eclectic as for the regular practitioner. When this difference of opinion exists the candidate could elect, as already provided for in the amendment, under which school he ranges himself, and could be examined by the examiner for that branch of such or such a school."

I see no reason why graduates from the homœopathic colleges should not be examined in old school as well as new school materia medica and therapeutics. It will not hurt our graduates to be versed in so-called old school materia medica; in fact I know of nothing more conducive to a bettering of the status of our school than that its graduates be required to pass the same examination as the old school graduates. It is an opportunity we should avail ourselves of. The extra work amounts to very little, and I deem its advantages incalculable. In Europe members of our school must always be graduates of the dominant school before they can legally practice homœopathy. Why not so in America? Whatever arrangement is adopted I cannot help feeling that this movement, if successful, will prove of inestimable benefit to medical education in general, and lead to a better status of our own school. There are evident signs to show that our established truths are being rapidly accepted, and that the two schools are tending more and more towards a proper understanding of each other, and to the general advance of the great science and art of medicine.

DR. J. G. GILCHRIST, in his "Record of a Year's Surgical Experience" (*Weekly Med. Counselor*, March 15), claims to have determined "that the so-called antiseptic method of treating wounds, whether accidental or surgical, is incomparably inferior to the practice of using *arnica*, *calendula*, or *staphisagria*, according to indications." Not only in his experience has it failed as a vulnerary, but it seems positively often to retard union. In cases in which union was prompt, the course of the case and the result, were not a whit more desirable and satisfactory than is usual under proper treatment of this kind.

Also Dr. G. has more than confirmed the efficacy of *Hypericum*, after operations, in preventing pain. Opines, he considers, can never secure the results obtainable by this remedy.

OBSERVATIONS ON A HEALTH RESORT.

By M. D. YOUNGMAN, M.D., ATLANTIC CITY, N. J.

Atlantic City, N. J., situate latitude 39° 22', is built upon an island measuring ten miles long and averaging $\frac{3}{4}$ of a mile wide. It has been a seaside summer resort for twenty-five or thirty years, and has always enjoyed more or less notoriety—on account of its mild and equable temperature, and the decided absence of humidity so objectionable at seaside towns generally—as a resort during the winter months for asthmatics and those affected with rheumatism, but it is only for the last fifteen years that it has enjoyed its constantly growing reputation as an asylum for invalids of all descriptions, but particularly sufferers from pulmonary and bronchial troubles, nervous exhaustion, and convalescents from acute diseases. And so great has this reputation become, that for the last two or three years, during the winter months, when a large number of the hotels and boarding houses are closed, having been built with reference to summer occupancy only, the accommodations have, at times, been almost inadequate for the multitude who flock here to breathe our bracing, life-giving sea air.

The resident population of the place numbers nearly 8,000. During "the season," which extends from June 1st to September 1st, the population fluctuates from fifty to seventy-five thousand.

It is a daily experience to meet new arrivals and hear from them expressions of surprise at the size and beauty of our city, there being a tendency on the part of many of those who have never before visited here, to compare it with the generality of sea coast towns, while Atlantic, with its miles of broad, handsome avenues elegantly paved sidewalks, its great number of large hotels and hundreds of smaller ones, and private cottages, street railways, omnibus and stage lines, gas and water works, the electric light and all the other modern conveniences of large cities, together with the most perfect of sanitary systems, is, in fact as in name, a city.

The hotel accommodations are of the first order. The majority of the larger houses are open the entire year. All are built with large, handsome verandas, and, during the winter, those facing the ocean are enclosed with glass, which make very pleasant spots for guests to congregate. These hotels are furnished in the most complete and luxurious manner, the appointments being perfect in every respect. Besides these, the city abounds with numerous private cottages, which many prefer to a large hotel.

As to the facilities for reaching Atlantic City, they present the greatest convenience. Three railroads have their termini here. The ride from Philadelphia is ninety minutes. From New York, two roads, "The Pennsylvania R. R., via its West Jersey branch" and the "New Jersey Southern"—which is controlled and operated by the Central R. R., of N. J.—"via the Camden & Atlantic R. R.," bring guests here in four hours, express trains running by both routes, direct.

The climate of Atlantic City, to which it owes its popularity, is one of the most delightful imaginable. During the summer, the prevailing winds are from the south, south-east and east. All of these, owing to the direction the coast takes at this point, the city facing nearly southward, are sea breezes. The city is one of the coolest watering places during the summer to be found; the ocean air coming in a fine steady breeze the entire summer. Once in a while, to be sure, we have a land breeze, and these are not so pleasant; but even these are more bearable here than elsewhere, for, on account of the island sitting in the sea, they must pass over an expanse of water before reaching us, and have their temperature markedly lowered. During the winter the west and north west are the prevailing winds, and these are dry and bracing. The remarkable peculiarities of the climate in the winter are its dryness, its equability of temperature, and, when the latitude (39° 22') is considered, its mildness.

To Gen. W. T. Hazen, Chief Signal Officer, U. S. Army, I am indebted for the tables furnished for this article. The following ones show the mean temperature and the total annual movement of the wind for the years ending June 30, 1880 and 1881. The summer temperature I give for Atlantic City alone, that of the winter being more important as regards invalids I compare with the places named:

Table showing mean temperature at Atlantic City, N. J., for the months named, summers of 1880 and 1881.

1880.					1881.				
May.	June.	July.	Aug.	Sept.	May.	June.	July.	Aug.	Sept.
63.2	69.5	73.	70.9	67.2	57.2	62.7	70.2	71.7	70.5

Table showing mean temperature for each of the winter months of 1880-81 and 1881-82 at the places named.

Stations.	Winter of 1880-1881.				Winter of 1881-1882.			
	1880.				1881.			
	Dec.	Jan.	Feb.	Mar.	Dec.	Jan.	Feb.	Mar.
Atlantic City, N. J.	29.2	27.9	30.3	38.4	42.2	34.0	37.9	41.4
Jacksonville, Fla.	54.9	53.0	58.0	60.0	61.4	62.5	61.7	66.7
Cleveland, O.	32.8	30.5	35.3	31.8	37.7	38.3	37.0	38.3
Chicago, Ill.	23.2	30.0	35.1	32.4	37.1	28.3	38.2	38.3
New York City.	27.7	26.0	27.8	37.1	40.7	30.5	35.6	39.8
Philadelphia, Pa.	28.6	25.9	30.7	38.8	41.7	31.2	39.6	43.9
St. Louis, Mo.	27.3	22.0	30.3	38.9	40.8	32.1	45.9	47.1

The figures above represent the mean temperature, but it will be realized at once that the mid-day temperatures are of the most value, for it is from 10 A.M. to 3 P.M. that invalids take their airing out of doors.

The fact that there is greatly less wind at Atlantic City than at most points on the coast is evidenced by the following table, which shows the whole movement (in inches) for the years 1880-1881, and at the neighboring stations either side of the place:

	1880.			1881.	
	Barneget.	Atlantic.		Barneget.	Atlantic.
Barneget.	1124.15		Barneget.	1108.14	
Atlantic.	885.10		Atlantic.	840.76	
Cape May.	1323.12		Cape May.	1349.98	

The following table will be of interest as showing the mean barometer and total precipitation for the years ending June 30, 1881-1882.

Table showing mean barometer reduced to sea level and mean precipitation in inches and hundredths.

Mean Barometer.			Mean Precipitation.		
Stations.	1880.		Stations.	1881.	
	1880.	1882.		1881.	1882.
Atlantic, N. Y.	30.069	30.047	Atlantic, N. Y.	44.29	55.48
Barneget.	30.083	30.028	Barneget.	47.27	60.13
Cape May.	30.053	29.960	Cape May.	50.92	60.54
Jacksonville, Fla.	30.112	29.968	Jacksonville, Fla.	54.99	66.87
Newport, R. I.	30.065	30.036	Newport, R. I.	40.75	61.45
New York City.	30.086	30.036	New York City.	38.24	49.50

It will be seen by this table that the barometer averaged higher at Atlantic City than at any of the other places named with the exception of Jacksonville, Fla., for the year 1881, and I would call attention to the precipitation of that year, in the corresponding table. These

barometrical changes are of great importance, since depressions of the barometer affect invalids far more injuriously than do low temperatures, the latter being readily balanced by an extra wrap or light fire, while the poor sufferer whose joints are set aching, or whose breathing is embarrassed by a sudden increase of the atmospheric pressure may not obtain relief by any such simple means. Then, too, barometrical changes are intimately connected with variations in the electrical conditions of the atmosphere, and we find these to produce their influence on the hyperæsthetic state of the sick.

Atlantic City has been styled the "Florida" of the north; but I think it presents an element of superiority over Florida, in that here obtains a greater uniformity of temperature, and a very desirable temperature for invalids, too, being not so cold as to render a residence within doors a necessity in the winter season, and yet at no time so warm as to cause relaxation of tissue and thus further enervate an already enfeebled constitution. Aside from this, a trip to Florida is a serious undertaking, involving a complete cutting adrift from home and friends, with the unpleasant prospect of dying among strangers, if the climate prove unsuitable, while, with Atlantic City, its ready accessibility makes it a matter of ease for invalids to test the benefit of its climate, and if finding it of no advantage, they are enabled to return to their homes and friends. Again, the prevalence of malaria in Florida is a source of much danger, while in Atlantic City, surrounded by unmixed salt water and founded on the driest of sand with no substratum of lime, stone or clay, malarial troubles do not exist in the slightest degree.

Dr. Boardman Reed, of this city, in a pamphlet entitled "Atlantic City as a Winter Health Resort," which he has kindly given me permission to make use of in the composition of this article, gives the following facts relating to the influence exerted on the climate of Atlantic City by the Gulf Stream.

A map furnished by the United States Coast and Geodetic Survey office at Washington shows that the heated waters of the tropics, pouring through the space between Cuba and Florida, flow in a north easterly direction along the coast of Georgia and the Carolinas, diffusing themselves as they go, until from a compact stream less than fifty miles wide, they have become opposite Chesapeake Bay a broad expanse upwards of four hundred miles in width. This really includes numerous parallel or slightly diverging currents of very warm water with overflow currents of a somewhat lower temperature. One of these overflow currents approaches within sixty-five miles of Atlantic City, while it is one hundred and ten miles from Sandy Hook. The principal current is farther away, being one hundred and thirty-five miles from Atlantic City, one hundred and eighty-five miles from Sandy Hook, and about the same distance from Long Branch and Montauk Point.

But the exceptional mildness of this climate may be attributed to the peculiar course of the Gulf Stream in this vicinity as much as to its proximity. The innermost current, according to the map received from the Coast Survey office, has a direction opposite Atlantic City of east-north-east, but turns more and more to the eastward till in latitude 40°—that of Philadelphia—it bears nearly due east. The main current turns more abruptly, and a little north of latitude 38°, some distance to the southward of Atlantic City, has a course directly eastward. Our south, south-east and east winds, then, must all pass for three to five hundred miles at least over more or less heated water which has come directly from the Gulf of Mexico. Our only ocean breezes not affected in this way are those from the north-east, and experience shows that these are the only winds which are generally unpleasant here. But for places farther up the coast, particularly those north of latitude 40°, the case is different. Neither their north-east nor east winds can be appreciably modified by the Gulf Stream. Their south and south-east winds may be favorably influenced

to some extent, but less than are the same winds at Atlantic City, since they pass over a much larger surface of cold water after crossing the Gulf Stream.

The diseases in which benefit is derived by a residence in Atlantic City are manifold. All diseased conditions that are bettered by an improvement in the general nutrition and tone of the system are susceptible of great benefit here. This covers a wide range of disorders. Of the special ailments for which the climate is noted as being curative of, or advantageous for, the following may be mentioned; pulmonary and bronchial diseases of all varieties; heart troubles, and these are particularly benefited during the winter; malarial diseases of every nature, rheumatism, gout, cutaneous diseases; and perhaps more prominent than any of the others, nervous affections, under which term I would include epilepsy, chorea, the different varieties of paralysis, and those many conditions whose name is legion broadly written "hysteria," nervous exhaustion, "spinal irritation," etc., etc. I would draw especial attention to these latter. We meet here a great many cases, professional and business men, whom business cares and over-work have brought to a realizing sense of the finiteness of human endurance, devotees of fashion who come here to atone for their sins, and others, who, from various causes, and in various ways, have exhausted their nerve force; all of these come, and, by a life of a few weeks of promise, and with the help of the bracing climate obtain absolution, and go away restored to health. Many of these cases are distressed with insomnia, and for these the sea air is a glorious hypnotic. I have seen several serious cases entirely cured by a residence here.

In bronchial affections and those lung diseases dependent on a catarrhal condition of the bronchioles and air cells, are seen the most happy results. Asthmatics are, as a rule, fully relieved while sojourning here, with a permanent suspension of the difficulty in many instances, while now and then in a very exceptional case (which proves the rule) a positive aggravation is the result. The marked improvement which obtains in cutaneous disorders as a result of a residence here brings many people to our city. I have seen a number of cases cured which had resisted extensive and various treatment elsewhere; for rheumatics the climate of Atlantic is Heaven.

And now, in closing, I would offer a few suggestions with regard to hygienic considerations. The matter of diet is not of importance in the winter, but becomes so in the summer season. The sea air creates a most voracious appetite, and it is necessary to restrain this, or the usual consequences of over-indulgence will follow.

Bathing, which is a factor in the successful treatment of many diseases, is here, as at all sea-side resorts, abused. The facilities for surf bathing are unsurpassed. Salt water bathing, both hot and cold, may be indulged in at the various hotels. The hot baths, if continued, are enervating. Sand baths are of value in rheumatic troubles and malarial poisoning. I find a very prevalent notion among visitors that one cannot "take cold" at the sea-side; this, of course, is erroneous, and the usual precautions against becoming chilled should be observed. In the morning and evening a light wrap is always in order.

As to exercise—which in some degree is necessary to all, even the weakest—the great trouble experienced with invalids is to keep them from taking too much. The stimulant effect of the air is so extraordinary that they are in danger of exhausting their slender stock of vitality as fast as replenished.

There are besides these enumerated, special points of hygiene applicable and necessary of observation in particular cases, which the physician should impress on his patient when prescribing a trip to or a residence at the sea-side.

DR. WEST, the great opponent of the identity of croup and diphtheria, now declares his conversion to the opposite view.

PHARMACEUTICAL FACTS Vs. PHARMACEUTICAL INCONSISTENCIES.

By T. D. WILLIAMS, M.D., CHICAGO, ILL.

It is a recognized truth that the divisibility of substance in homœopathic pharmacœutics accords with a division of the said substance into tenths and into hundreds; that the medicinal properties of the said substance and not the woody fiber, cellulose, etc., are the therapeutic agents, hence, it is the former and not the latter which the pharmacist seeks to divide into tenths and into hundreds.

One part of *Peruvian bark* and nine parts of milk sugar, thoroughly rubbed up together, make a division of both the substance matter and the medicinal properties of the said substance, which is a reduction of the substance and its medicinal properties as a whole into tenths; that is to say—every one part of this admixture contains one-tenth part of *Peruvian bark*, substance and properties, and nine parts of milk sugar.

Upon the other hand, however, suppose that one part of *Peruvian bark* is added to nine parts of alcohol, sp. gr. 914, which, in this instance, we will assume to be the most perfect of all solvents. The preparation so made, will, at the expiration of fourteen days (not eight days), be a division of the medicinal properties of the said bark without any great diminution of drug quantity, whose drug power is, nevertheless, not one-tenth but one ninth; a further reduction of which, if attempted on the decimal plan, namely, one part of this preparation to nine parts more of alcohol, will not be a succession of tenths but a succession of ninths.

In the preface and introduction of a recent work on pharmacology it reads, "for many years the want of a practical, complete and reliable homœopathic pharmacœia has been felt in this country;" that "good pharmacœias have been issued that would only require to be brought up to date to make authoritative;" that, "in homœopathic pharmacy the method of preparation does not so much depend upon changing scientific views and transient new processes, as upon that (method) employed by the original prover, in order that uniformity in preparation may justify succeeding verifications and cures."

Now from this language it is evident that the publishers would give the profession to understand that after these many years the want herein alluded to has been supplied; that in this work the profession have a "practical, complete and reliable homœopathic pharmacœia;" that in this production is the concentration of all practical homœopathic pharmacœutics found in "good pharmacœias up to date;" and that, "in homœopathic pharmacy, while the method of preparation does not so much depend upon scientific views and transient new processes and the securing of an uniformity of preparation," the "succeeding verifications and cures" do depend, not upon the said "scientific views and transient new processes," but upon the method as employed by the original prover; the writer says this too without any apparent regard for what he has said elsewhere, namely, "we gleaned from recognized authorities in the sciences and made use of all the homœopathic literature bearing on the subject," all of which means, when properly interpreted, that the formulas of the several preparations referred to in the work are the working formulas of the original prover of each drug, notwithstanding "we gleaned from recognized authorities," and not the formulas of any one man or set of men whose mind is, or minds are, in any way "befuddled" either with "scientific views or transient new processes."

On page 13 under Class I., the reader is informed that "tinctures prepared with equal weight of juice and alcohol possess a drug power of one-half; that one part of the juice possesses a drug power of one; in other words, that all the medicinal properties

contained in the recently-gathered plant are soluble in its own juices and therefore the solid portions are not only non-medicinal but being actually inert they are to be treated as a waste, and this, too, simply because such is alleged to be the original prover's dictum. As a question of fact there is no satisfactory evidence yet given, in any one instance, which determines that one part of the expressed juice represents the medicinal properties of one part of the fresh plant. However there are, indeed, many instances where the medicinal properties of a plant are either resinous or volatile and therefore require the presence of alcohol or ether, in direct contact with the plant, in order to properly extract them. Indeed, such substances, whether fresh or dry, together with their juices when fresh, should be invariably treated with their proper solvent.

Again on page 13, Class II., it reads: "Tinctures expressed by the aid of two parts of alcohol added to three parts of the plant" give a drug power of one-half; a drug power that is, "according to the fundamental rule," one and one-half instead of one-half. For instance: one part of *thuja* (see page 455) and two-thirds of one part of alcohol when treated as follows—"mix it (alcohol) with the pulp, stir and strain through a piece of new linen,"—does not, and will not, give any definite drug power, whether the said preparation be allowed to stand eight or more days or not, the opinion of the original prover and writer notwithstanding. If properly treated a preparation composed of these quantities might possibly represent a drug power of one and one-half as above stated, but never when treated as above directed. Were these quantities treated properly, and the tincture thus prepared made to possess a drug power of one and one-half, then the first centesimal dilution would require three minims of the tincture to two hundred and ninety-seven minims of alcohol instead of two minims of tincture to ninety-eight minims of alcohol as directed by the writer.

Under Class III., it is said that, "Tinctures with two parts by weight of alcohol to one part of plant give a drug power of one-sixth." Again I am obliged to differ. The drug power in this instance is one-half; for, if there was sixteen ounces of alcohol and eight ounces of the plant, in each fluid part thereof, minim, ounce, or pound, there would be eight-sixteenths or one-half part representing the medicinal properties of a like quantity of plant, the balance, eight-sixteenths or one-half, being alcohol. To prepare the first centesimal dilution from this, it would require two minims of the tincture to ninety-eight minims of alcohol, instead of six minims of the tincture to ninety-four minims of alcohol as expressed under directions for the preparations belonging to this class.

On page 14, Class IV., it is further alleged that a "Tincture prepared with five parts by weight of alcohol," gives a drug power of one-tenth. In this case the drug power is twice one-tenth, or one-fifth; that is to say, if one part (the writer fails to name the quantity) of the drug is used with five parts of alcohol. Of this it would require five minims to make one part; to which, in order to make the first centesimal dilution it would be necessary to add ninety-nine minims of alcohol. It would also require five minims of the tincture to nine minims of alcohol to make the first decimal dilution; after which one part to nine would make the second; one part of this to nine more, the third, etc.

On page 17, Class VII., under the sub-heading "Conversion into Liquid Potencies (decimal scale), it reads: "One grain of the sixth decimal trituration dissolved in fifty minims of distilled water and mixed with fifty minims of alcohol gives the eighth (decimal) potency."

If the medicinal properties of the sixth decimal trituration (the properties of one ten-millionth of one part—in this instance of one grain of plant) are soluble in equal parts of water and alcohol, why not dissolve one part of the trituration in nine parts of diluted alcohol and label it the seventh decimal dilution, taking one part of

this to nine more parts of alcohol, making the eighth decimal dilution, and so on? Certainly there is nothing any more mysterious about one dilution than there is about another. The medicinal properties of the sixth dilution are soluble in proportion of one part to nine of alcohol, and so is the seventh, also, although neither of them actually represent a decimal notation. Indeed, in order to actually make them decimal preparations, the first transfer from the sixth to seventh should be by weight; that is, one grain of the sixth to nine grains (not minims) of dilute alcohol; subsequently (for all other dilutions) one minim, ounce, or pound to nine minims, ounces, or pounds should be used.

On page 19, Class IX., it reads: "Fresh vegetables and animals are first pounded or grated to a fine pulp, then triturated and potentized according to the following proportions by weight and measure." In preparing the first centesimal trituration the directions given are as follows: "Two parts by weight of the substance and ninety-nine parts by weight of milk sugar give the first trituration." In a foot-note the writer says: "Two parts are taken, because of evaporation during trituration." This is a loss of 50%; and, it is hardly reasonable to suppose that all vegetable and animal substances employed under this class contain just 50% of moisture, hence, such triturates must vary, when prepared in accordance with these directions, both in their drug quantity and drug power. Therefore, in preparing the first decimal or centesimal trituration it becomes necessary, first, to actually determine the amount of moisture, after which one part by weight together with its additional weight of moisture, which in some instances might be equal to another part, added to nine or ninety-nine parts of milk sugar, will actually give a decimal or centesimal preparation, one part of which to nine or ninety-nine more of milk sugar will give the second, etc.

In brief, it is very evident that the writer of this practical (?), complete (?), and reliable (?) homeopathic pharmacopoeia was somewhat "hampered by carelessness or self-derived opinions," or else he would not have forgotten in his eagerness to emulate others that a solid substance is never a fluid one until it is made soluble; that a preparation of nine parts of alcohol, holding in solution the medicinal properties of one part of plant, is not a decimal preparation unless the substance together with its properties (one part) is wholly soluble making therewith ten parts with the nine parts of alcohol; finally, that two parts of substance (an unknown proportion of which being water is certain to evaporate), together with milk sugar, either in nine or in ninety-nine parts, does not make ever either a decimal or a centesimal preparation.

OPTICO-CILIARY NEUROTOMY.—A simple way of performing this operation (the proposed substitute for enucleation) has been tried in three cases by Dr. J. A. White of Richmond, Va., and found "to work admirably." He describes it as follows in the *Va. Med. Monthly*, Dec. 1881:

A meridional incision is made through the conjunctival and sub-conjunctival tissues from the upper border of the external rectus to the outer border of the superior rectus, thus exposing the sclerotic. A strabismus hook is then inserted under each of these muscles, and with them an assistant pulls the eye down and toward the nose. A small lid elevator is then hooked under the upper lip of the incision and drawn up, thus making a large opening through which the curved scissors can be passed behind the eyeball, and the optic and ciliary nerves cut. Knapp's double hook is then inserted into the posterior part of the sclerotic, and, without any trouble the cut end of the optic nerve and its surroundings are exposed to view at the incision. The sclerotic is then carefully cleaned with the scissors, thus cutting away sections of the optic and ciliary nerves. As long as any blood oozes from the opening, it is kept open. When this ceases, a conjunctival stitch is put in, and cold water dressing applied.

CLINIQUE.

ABNORMAL REGULAR ASTIGMATISM.

By W. H. WINSLOW, M.D., PITTSBURGH, PA.

The refraction of the eye is one of the most interesting divisions of ophthalmology. Its consideration demands a respectable knowledge of physics and mathematics, and leads one into those abstract trains of thought, and comprehensive generalizations that delight and satisfy the scholarly mind. It may be safely asserted that the difficulty of comprehending the problems of refraction met with in ophthalmic practice, deters many from its pursuit, and elevates those physicians who have mastered the subject to a commanding position in their school and community.

The most difficult questions in refraction are those presented in abnormal astigmatism, and their solution requires patience, care and judgment.

The cornea and crystalline lens constitute the principal parts of the refractive apparatus of the eye. Their surfaces are in a measure irregular, and they resemble sections of ellipses with the different meridians asymmetrical. Even the normal eye has the curvature of the cornea in the vertical meridian greater than in the horizontal, while the curvature of the lens in the horizontal meridian is greater than in the vertical. The variation in one tissue counteracts and compensates that in the other, though they do not lie exactly in the same plane. The plane of the cornea is not always parallel with the plane of the equator of the lens; the axis of the cornea is not in line with the axis of the lens, and the axis of vision passes inside of both, and varies considerably during the act of accommodation. These and other defects in the execution of the plan of creation have, however, an indeterminate influence upon vision, and it is idle to speculate upon them.

The refractive power of the aqueous humor differs but little from that of the cornea, that of the lens from ether, and the vitreous, as an individual refracting medium, is considered unimportant.

The sections of the ellipses of the refractive surfaces are so much covered by the iris, and limited by the size of the pupil, that the parts of the dioptric system concerned in the act of vision are regarded as having spherical surfaces, and, owing to the difficulty, not to say impossibility, of determining in practice the dioptric error of the individual parts, the refractive system is considered and treated as a convex lens. This greatly simplifies the work of the oculist, and enables him to detect abnormal curves and to apply corrections with certainty and success. One will not study cases of astigmatism very long, however, without coming to the conclusion that he can sometimes differentiate an astigmatism of the lens and vitreous, on the one hand, from one of the cornea and aqueous on the other.

Abnormal regular astigmatism is a difference in the curvature of two meridians of the hypothetical lens, at right angles to each other, of so great a degree, as to cause defective vision and various other symptoms of more or less gravity. "The anterior surface of the cornea generally determines the maximum and minimum of refraction. The astigmatism of the cornea alone is usually greater than that of the dioptric apparatus as a whole. The astigmatism in a given case does not correspond to the difference between the astigmatism of the cornea and lens, because their astigmatism may be in the same meridian and their sum constitute the whole. Great astigmatism is likely to be lenticular, and changes in degree with the accommodation."

Abnormal regular astigmatism causes disturbing symptoms, only when the difference between the two meridians at right angles to each other is great, the pupil is much enlarged, or there is a necessity for fine work, as reading, writing, sewing, engraving, etc.

The effects of astigmatism are lessened by good illumination, which diminishes the size of the pupil; by narrowing the palpebral aperture; by looking through a stenopæic slit or hole; using the eyes only for coarse work and distant vision; employing a glass which corrects any myopia or hyperopia, or one whose curvatures combined with those of the dioptric apparatus make refractive media of sufficient power to focus parallel rays of light exactly upon the surface of the retina.

This article is not intended to be an exhaustive essay upon astigmatism, but a presentation of some well-known principles of refraction, illustrated by interesting facts observed in practice.

It is advisable to study cases of astigmatism at first, while the dioptric apparatus and the accommodation are in a normal condition, uninfluenced by any mydriatic. It must be remembered in testing, that the ciliary muscle will act upon the accommodation so as to focus, now for one principal meridian, now for the other, and again for intermediate meridians, in order to understand the confusion and contradictions of the patient's answers in regard to distant radiating lines. The vision during such changes is considerably disturbed and transient amblyopia is not uncommon. The muscle is frequently affected by spasm, so that transient myopia and false degrees of astigmatism are produced. The astigmatism seems to diminish in degree and often to disappear, during near vision, because everything is seen under a greater angle, and the pupil diminishes and the iris cuts off many of the circles of dispersion. Its angle changes, also, because the eyeball is rotated a little, during the convergence which accompanies accommodation.

All cases of astigmatism should be studied finally after the accommodation is completely paralyzed by a mydriatic, in order to make a perfect correction, and avoid serious errors. Astigmatism can occasionally be detected by reflections from the corneal surface, or by the naked eye appearance of the corneal meridians. It is easily recognized when of respectable degree by ophthalmoscopic examination. Dilatation of the pupil increases the circles of dispersion of abnormal meridians upon the retina, and renders the dioptric errors more apparent to the patient. When the accommodation is paralyzed, the degree of astigmatism remains constant, and there is little tendency to rotation of the meridians by convergence of the visual axes. Amblyopia is, however, likely to be increased, owing in part to the exhaustion of sensibility from the large influx of light through the wide pupil.

The following cases illustrate interesting points in astigmatism:

Case 1. Miss M., a school teacher, aged 25 years, of robust health, suffered much from asthenopia. I found,

R. E. V. $-\frac{1}{2}$. With $-\frac{1}{4}$ sph. V. $-\frac{1}{2}$ Sn.
L. E. V. $-\frac{1}{2}$. With $-\frac{1}{4}$ sph. V. $-\frac{1}{2}$ Sn.

The examination was tedious, but the patient selected the myopic glasses with decision. The ophthalmoscope gave negative results. After *Atropia* six days, I found,

R. E. V. $-\frac{1}{2}+$. With $+\frac{1}{4}$ sph. V. $-\frac{1}{2}$ Sn.
L. E. V. $-\frac{1}{2}$. With $+\frac{1}{4}$ sph. $\odot + \frac{1}{4}$ cy. ax. vert.
V. $-\frac{1}{2}$ Sn.

This result was very astonishing, but its correctness was proved by the complete cure of the patient by glasses given according to these formulæ. The myopia during the first examination was a result of spasm of the ciliary muscle. This muscle was undoubtedly hypertrophied by the excessive demands made upon it to overcome the hyperopia, and the mere placing of glasses before the eyes for distant vision induced a contraction equivalent to that required daily in near work. The transient myopia was lenticular, and the astigmatism was probably in the cornea, as there was irregularity in the left orbital margin.

The ciliary muscle is capable of great action in some instances. I treated an adult with hyperopia of $\frac{1}{4}$, who read moderately and with comfort until he was 35 years

old; and another, with hyperopia of $\frac{1}{2}$, who studied hard in college till 30 years old. Then the eyes broke down and he was obliged to wear glasses.

Case 2. Miss K, a dressmaker, aged 28 years, healthy, had asthenopia. She had,

R. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ sph. $\ominus -\frac{1}{8}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

L. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ sph. $\ominus -\frac{1}{8}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

The shape of the eye and the ophthalmoscope showed myopia. After *Atropia* four days, I found,

R. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ sph. $\ominus -\frac{1}{8}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

L. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ sph. $\ominus -\frac{1}{8}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

The slight difference between the formulæ before and after atropinization was probably due to amblyopia, induced by prolonged use of the test glasses. This case is instructive in comparison with the preceding, showing no ciliary spasm. This is never present in a decided degree in any case of myopic astigmatism unless mixed with hyperopia.

Case 3. Mr. A., a draughtsman, aged 29 years, in good health, was troubled with asthenopia. Upon examination,

R. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

L. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

The ophthalmoscopic appearances were doubtful because of an active iris, and, as time could not be spared for the use of a mydriatic, and the glasses gave relief, they were ordered to be worn during near work. They were used with comfort for eighteen months, then examination gave,

R. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

L. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ cy. ax. hor. V. = $\frac{1}{8}$ Sn.

There had evidently been an increase in the myopic astigmatism. Glasses of these formulæ were ordered for near work, and were worn comfortably six months, then asthenopic symptoms became troublesome and the patient consented to paralysis of the accommodation. *Duboisin* was used four days and these formulæ educed,

R. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ cy. ax. hor. $\ominus +\frac{1}{8}$ cy. ax. vert. V. = $\frac{1}{8}$ Sn.

L. E. V. = $\frac{1}{8}$. With $-\frac{1}{2}$ cy. ax. hor. $\ominus +\frac{1}{8}$ cy. ax. vert. V. = $\frac{1}{8}$ Sn.

These combinations of mixed astigmatism gave entire relief to the patient. The result is surprising, considering the ease which the myopic cylinders afforded so long, but correcting the weaker astigmatic meridian will often bring relief to a patient, when correcting the stronger, especially if it be hyperopic, will not. Habit has considerable influence in such cases. It is not unusual for a patient to select a glass a number or two stronger or weaker, at different sittings, as the degree of light, the sensibility of the retina, and condition of health exercise considerable influence upon the acuity of vision. It is evident in this anomalous case there was considerable irregular spasm of the accommodation by the mere placing of a glass, or the ophthalmoscopic mirror before the eye, otherwise the patient and I should have recognized the large hyperopic astigmatism in the left eye.

Ophthalmoscopic examination of an active eye diminishes the pupil, cuts off circles of dispersion, induces extreme accommodation, and prevents, in many cases, an estimation of astigmatism. The first myopic cylinders, though giving relief for such a length of time, and the continuous work, increased the ciliary spasm, and covered up the hyperopic astigmatism. The limit of ciliary power was finally reached, the lens grew denser in the two years that passed, the necessity for near work continued, and painful asthenopia finally made a thorough examination necessary.

There are many persons in every community made miserable by inability to use their eyes much on account of astigmatism not suspected by the family doctor, and its scientific correction brings relief to the patient, and is a source of gratification to the oculist.

CLINICAL NOTES ON MENTAL DISEASES.

COLLECTED FROM THE GERMAN BY F. G. OEHME, M.D.,
TOMPKINSVILLE, STATEN ISLAND N. Y.

[Continued from Page 106.]

9. *Baryta*. Idiocy; mental weakness with foolish actions; with increased sexual desire. Hyg., 24, 17. Hirsch. Ztschr. 26, 52.

10. *Belladonna*. Excitement, from the slightest degree to the highest state of fury—anxiety, uneasiness, restlessness, sleeplessness, fear, talking nonsense, laughing, crying, singing, screaming, scolding, spitting, destroying, trying to strike or kill, delirium, hallucinations, mostly of a frightful nature, with attempts to escape.

In many cases, after childbirth or suppression of menses.

Occasionally we find suspicion, distrust, desire to hide or to be alone; dread of people.

Frequently the signs of rushing of blood to the head are present; also jerking of the muscles, or convulsive movements, and difficult swallowing, etc.—Arch. 11, 2, 84, 12, 379 and 10, 1, 93. Hyg. 20, 233 and 21, 139. Annal. 4, 193, 329 and 340. Pr. Beitr. 4, 4, 223. Allg. h. Ztg. 6, 213, 8, 121, 13, 299, 37, 56, 19, 18, and 49, 175. Heilanst. 1, 145 and 2, 120. Pr. M. S. 5, 115 and 11, 14. Hirsch. Ztschr. 2, 101, 10, 110, 11, 29 and 26, 52.

11. *Brom*. Only one case reported. Melancholia with disease of the womb and ovaries.—Amer. Jour. of Hom. Mat. Med., 2, 145.

12. *Bryon*. Unhappiness after childbirth.—Pr. 1. V. *

13. *Calcar. carb*. Only one case reported. Hallucinations, hopelessness, despair after childbirth. The patient had a tapeworm, was somewhat scrofulous, and had not menstruated for 2½ months. The mental disease probably secondary. *Calc.* is recommended for hopelessness respecting recovery, with fear of death.—Arch. 17, 1, 8.

14. *Cannab. Indic*. One case. An intelligent woman with a weak constitution had melancholia after overwork.—Amer. Hom. 1, 112.

Haschisch. One case of melancholia. Distance and time seemed very long. Fifteen grains *pro dosi* every other day; 5 doses.—N. Y. Journ., 2, 371.

15. *Capsicum*. Homesickness with redness of the cheeks. Jahr. 83.

16. *Carbonum sulphuratum*. *Bisulphide of carbon*. No case, but an involuntary proving. A woman, who was continually exposed in her business to the fumes of this liquid, was taken seriously sick and showed the following symptoms: No appetite, diminished memory, forgets what to do with the things in her hands while at work. Fainting. Great dryness in the throat caused her to drink enormous quantities of water. Dementia and confusion of thought; in speaking, hits the teeth with the tongue like a child. Great weakness of the legs. Anesthesia of the skin and mucous membranes, etc.—Berliner Klin. Wochenschrift, 8, 2, 1871. Hirsch. Ztschr., 21, 48.

17. *Causticum*. Consequences of continued grief and sorrow. Melancholia.—Arch., 17, 1, 8.

18. *Chelidon*. One case. Very great anxiety, as if she had committed murder; has no peace, neither night nor day. Dizziness, flashes of heat bitter taste in the mouth, left hypochondrium sensitive to touch, stool hard, whitish yellow; palpitation of the heart, and tightness in the chest.—Allg. h. Ztg., 71, 143.

19. *China*. One case of mania during the paroxysm of an intermittent fever.—Hyg., 24, 4.

20. *Cimicifuga*. 1. *Nervous excitement nervousness* uneasiness. One case of mania with hysteria, nymphomania and talking of nonsense. Chilliness trembling.

In one case, after an accident, great excitement with loud crying, groaning, convulsive movements, trembling. In another, with inability for work or business. In still another, the excitement appeared the last weeks before childbirth.

Melancholia, hopelessness, with lamenting, groaning, sighing or taciturnity. Indifference. Likes to be alone. Sits constantly in the same place. Distrust. Easily irritated.

Once only the temperament, etc., is specified—bilious; dark hair and eyes.

In one case after childbirth: in another combined with great weakness from too long nursing.

In both forms we find in almost all cases *sleeplessness*; in one case uneasy sleep with troublesome dreams, groaning and sighing, awaking with great anxiety. We find further in many cases constant apprehension or fear of an impending calamity or misfortune. Occasionally constipation.

We will mention here that *cimicifuga* has been used with success for nervous uneasiness or fear previous to unaccustomed exhibitions in public, such as examinations, public speaking, etc.—(German: Kannonen-feber).—Amer. Hom. 1, 193; Hahnem. Monthly, 3, 437; N. E. Med. Gaz., 2, 251 and 3, 56; Hale's N. Rem. 213; Amer. Obs. 10, 210; Allg. h. Ztg. 94, 89.

21. *Clematis*. Inclination to suicide in consequence of disease of the testicles.—Baehr's Therap. 1, 223.

22. *Cocculus*. Inclination to escape from attendants; great anxiety and talkativeness, dizziness.—Hyg., 23, 264.

One case of idiocy after suppression of menses in consequence of a cold; dread of people; refuses to eat or does it very ravenously. This condition regularly increased for eight or ten days, then decreased, and was followed by a comparative quietness of two or three weeks. During the last two attacks she was quite wild, talked, danced, and made all sorts of grimaces.—Allg. h. Ztg. 89, 117.

23. *Conium*. *Melancholia* of men, with weakness of the sexual organs and frequent weakening emissions; especially with abstinent men. Attacks of melancholia, alternating in one case with excitement of always ten days' duration, in the other with apparent health of fourteen days' duration. Constipation.—Allg. h. Ztg. 8, 198, 9, 196 and 49, 175; Baehr's Therap., 222.

24. *Oreus*. Two cases. Intermittent attacks of insanity, in one case with much laughing.—Schmidt H. A. & G., 121; Jahr. 29.

25. *Cuprum*. *Excitement with great anxiety* and despair. Unconsciousness, as if from some impending danger. Unpleasant, frightful hallucinations, with fixed ideas; talking, lamentations. Mania with anxiety; with raving and screaming. Melancholia—crying easily.

In most cases we find a severe derangement of the whole system with defective circulation, manifested by coldness of the limbs and body, cold perspiration—in one case alternating with attacks of heat in face and head—weak, irregular pulse, etc. We meet further with sleeplessness or uneasy sleep, headache, dizziness, weak memory, flickering before the eyes, constipation, spasmodic motions of the fingers, etc.

Cupr. suits, like *argentum*, particularly the carbon-nitrogen constitution (deficient oxydation of the blood with consequent surplus of carbon and nitrogen; Grauvogl.)

In one case, one week after childbirth, in another after suppression of menses.—Hyg. 12, 120 and 122; Allg. h. Ztg. 24, 238 and 29, 53; Hirsch. Ztschr. 26, 135; Z. d. Ver. d. h. A. Oe. 1, 2, 71.

25. *Digitalis*. Insanity after self-pollutions, especially when accompanied by weak memory. Sleeplessness in mania.—Baehr, Monogr. on Digit. 171 and 211.

27. *Euonymus*. Melancholia with tightness of the chest and attacks of suffocation.—Hirsch. Ztschr. 11, 126.

(To be Continued.)

PHENIC ACID.

By JAMES ROBIE WOOD, M.D., NEW YORK.

While in chronic malarial diseases, *phenic acid* has proved of value, thus far in the trials of the last few weeks, its use in acute intermittents has been most unsatisfactory; being both tardy in action and temporary in effect, the fevers returning whenever the remedy was suspended. In one case, however, it gave an excellent result; an infant suffering from an intermittent fever with entire loss of power in both legs, was given fifteen drops of the *syrr. iodo-phenic* every three hours, when both the fever and paralysis disappeared and the child improved in general health; but unfortunately for the purity of the experiment, the little patient was thoroughly rubbed with salt water daily, and the homœopath is blind, indeed, who has not seen the efficiency of salt in intermittent fevers. During the administration of *phenic acid* in three cases of chronic malaria, distinct intermittent fevers developed. In the cases of long standing it has been very remarkable that the true marsh miasm has been without exception quickly cured; whereas, the cases originating in the city have been troublesome to benefit with *phenic-acid*. In one case of severe erysipelas, the *ammonia-phenate* acted with surprising power. A gentleman weighing nearly three hundred pounds, was found on the first visit in a deep stupor from which he could be aroused but for a few moments at a time—temperature 105, pulse 120, respiration 44, with erysipelas of one leg spreading upward. He was ordered the *syrr. ammonia phenate*. Contrary to directions, a desert spoonful was given every half hour for fourteen hours, so that the dangerous dose of about forty grains of pure *phenic acid* was taken by the sick man within fourteen hours; yet no symptom of poisoning appeared, except a cough with expectoration of blood, which quickly disappeared by reducing the doses to once in three hours, and giving *belladonna* and *phosphorus* and plenty of water. Within sixty hours from the beginning of the attack, temperature pulse and respiration were normal, and the erysipelas rapidly disappeared. The year previous a similar attack kept him confined for six weeks. Unfortunately, on account of the enormous and unjust price of Déclat's *phenic acid*, the experiment could not be extended to the poor.

CONGENITAL HYPERTROPHY OF THE TONGUE —EXCISION—RECOVERY.

By H. C. FROST, M.D., BUFFALO, N. Y.

The little patient on whom I operated was a male child fourteen months old. The parents were Germans. The mother stated that the child had always been healthy, but when born the tongue protruded nearly an inch from the mouth. It had gradually increased in size, till the day of operation it protruded fully an inch and a half when the child was supine, and when sitting it was still more pronounced. Not only was it longer than normal, but the enlargement extended in every direction, it being one inch in thickness. The mother had suckled the child till it was ten months old. Up to the period of dentition there were no inflammatory symptoms; there was constant dribbling, and the protruded portion became dry from exposure to the air; but on the irruption of the incisors there was at times some bleeding where the teeth penetrated the under surface.

When the child was fully anesthetized, I drew out the tongue with the vulsellum forceps, where it was held

by an assistant. I then introduced a trocar through the median line, leaving the canula in place, at a point where I wished to divide the organ. The wires of the ecraseurs were then introduced through the canula, and the latter withdrawn, two instruments being used simultaneously, one for either half. The operation was performed slowly, occupying about fifty minutes, and as a result we had no hemorrhage. Enough of the organ was removed so that what remained would lie within the alveolar borders. In operating I used wires of different make in the ecraseurs. On the side where the twisted wire was used there was not the least sign of blood at the close of the operation, but in the other ecraseur I had a smooth French wire, which left a smooth oozing surface. About fifteen minutes after the operation, blood spurted from the ramine artery, on the side where the smooth wire was used. This was tied with a silk ligature, and the ends cut short.

Forty-eight hours after the operation the tongue had become so much swollen that it was with difficulty that nourishment could be tubed into the stomach. The child made a good recovery. Although the incision ran transversely across the organ, the contraction of the cicatrix has been such that the extremity of the tongue is rounded and pointed, quite as much as in the normal organ.

INOCULATION OF BOTH EYES FOR COMPLETE PANNUS WITH GONORRHOICAL PUS, BY E. S. PECK, M. D.—John Smith, at. 21, October 18, 1880, came to hospital suffering from trachomatous pannus in both eyes; duration in the right eye four years, in the left eleven. Attributes this trouble to use of dirty towels at an orphan asylum. Patient could merely make his way around the ward; sight of right eye was better than that of left. After experiments with three other kinds of pus, none of which gave rise to any signs of acute inflammation, it was determined to use gonorrhoeal pus. A fresh case, of seven days' discharge, was found in one of the male venereal wards. Two drops were applied by means of the finger to the cornea and conjunctiva of right eye. Orders were given to let it entirely alone, and not to protect the left eye.

Dec. 15.—Within ten hours the right eye showed all the signs of an acute ophthalmia, and the disease was left to run its course.

Dec. 16.—The left eye developed the same character of inflammation.

Dec. 25.—Copious discharge of a creamy yellow pus from both eyes; complains of considerable pain under lids.

Jan. 4, 1881.—Ordered solution *nitrate silver*, gr. x., *ad. aq.* 1 oz., three days of the week, and the same solution, gr. v., *ad. aq.* 1 oz., four days of the week with constant application of iced cloths.

Patient discharged in the month of March, and visited me April 10, when examination gave vision—right eye, four years blind and inoculated, V—finger-counting at nine feet; left eye, eleven years blind, inoculated by infection, V—equal fingers at one and one-half feet.

Patient has engaged himself at a livery stable, and states that his sight for this purpose is sufficient, and that he suffers no pain nor tenderness. In the right eye the iris and pupil are plainly to be seen.

It is a subject of pertinent inquiry whether it be good surgery to undertake so bold a measure. * * * The chief danger with gonorrhoeal pus is not its virulence, but the possible concealment of a venereal sore upon the part from which the pus is taken. Such an accident would be grave in its consequences. It would surely premise a perforating ulcer of the cornea, if it did not entail syphilis.

Another danger to be feared is the establishment of diphtheritic instead of purulent ophthalmia. As diphtheria has special habitats, this danger is more to be feared in certain countries than others. The best success has resulted with eyes where the cornea has been

very vascular, the pupil and iris being scarcely visible. * * * Mr. Lawson states that such eyes will almost invariably recover, and good, useful sight be regained. Another important point is that pus increases in virulence in its travel, so that a third eye will receive stronger pus from the second eye than this received from the first. Of the 170 eyes inoculated by Mr. Bader, two corneae were entirely lost, and ten were perforated by the suppurative process.

In case of monocular pannus, inoculation may be questionable. * * * Where the cornea is dry, whitish, or in the condition of confirmed staphyloma, where there is not a well-pronounced vascularity of its superficies, and where also granulations of the conjunctival surfaces are wanting, inoculation will not only be unsatisfactory, but may be dangerous. But with these latter conditions well exemplified, I should not hesitate to employ this bold means after all other plans of treatment had failed to restore sight.—*N. Y. Med. Record*, July 2.

COLD AIR BATHS IN THE TREATMENT OF PNEUMONIA.—In the *N. Y. Med. Record*, Sept. 10, Dr. J. Turner Everett gives the particulars of what he emphatically styles *his method of treating pneumonia*. This consists in applying cold directly to the mucous surface of the air-passages of the lungs, to their finest and most distant ramifications, *by means of inhaling cold air continuously*. While the patient is inhaling the cold air, the temp. of which should range from 10° F. to 15° F., the room in which the patient lies should be kept at from 80° to 85° F. Thus the afflux of blood is changed from the central organs to the periphery. The cold air, coming in direct contact with the tissues of the pulmonary parenchyma, abstracts heat from the blood by coming in such close contact with it over such an extensive area. By carefully noting the external temp. and that of the patient, this abstraction of heat can be regulated with the utmost nicety and precision—can be commenced or stopped instantly.

This cold air in thus coming in contact with the lung-tissues causes contraction of the vessels, thus lessening the amount of blood admitted to the lung-tissues, and by its constricting influence tends to drive out that which has become partially deposited by the stasis, while by increasing the oxygenation of that already admitted it hastens resolutions. The increased heat of the air surrounding the patient favors copious perspiration, thus, by the evaporative process, favoring the additional abstraction of heat. Of course, we must keep in view the fact that this agent would be useless after stasis occurs, and should therefore be used only in the stage of hyperemia.

Fortunately, as the great majority of the cases occur in the colder months, we have only to connect the lungs of our patients by means of an elastic tube, of sufficient calibre, with the external atmosphere, and we have the remedy in unlimited supply. In treating the few cases which might occur during the warmer months, the air should be drawn through a refrigerator.

[Several cases are given.]

CASE OF GALVANO-PUNCTURE IN AORTIC ANEURISM.—Mr. Richard Cannon reports the case of an aortic aneurism which had almost reached the point of rupture, the skin being reddened and very thin over the tumor, which was cured by the insertion of two needles connected with twelve Stohrer cells. It is stated that when the needles were withdrawn no current was to be detected, so the favorable results may with equal probability be attributed to the mere presence of the needles or to the electrolytic action. The needles remained in the tumor only twenty minutes; at the end of ten days the tumor, which had only been the size of a walnut, had flattened down to the chest walls, pulsation and redness had disappeared, and there was no pain or cough. *Iodide of potassium* was administered internally throughout the treatment.—*Lancet*, October 22, 1881.

New York Medical Times.

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"A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and OUGHT to be the ONLY ACKNOWLEDGED RIGHT of an individual to the exercise and honors of his profession."—Code of Medical Ethics, Amer. Med. Ass., Art. IV., Sec. 1.

Our practice is not "based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

WHAT SHALL WE DO WITH HOMŒOPATHY?

The question, "What shall we do with Homœopathy?" is exciting no little attention on the part of our colleagues of the "old school."

It appears from the opinions of many of our so-called opponents, that it is the term by which "our school" is generally known, to which they object, and not the principles upon which it is founded. "Act as you please, but do not adopt a sectarian title," is the dominant sentiment of the "old school" to-day.

Now we speak advisedly when we assert that the great majority of our practitioners care nothing whatever for the name by which we have been designated as a "School;" but the principles upon which it stands are eternal, and never will be abandoned.

One cannot read the views of our antagonists respecting the subject, without a smile at the utter ignorance shown, by referring to us as "in antagonism to the medical profession," and other similar nonsensical untruthfulness! We should like to know upon what ground it can be asserted that "the doctrines of their founder have no advocates among them now, or if any, very few," for this is the exact contrary of the truth. Never was the maxim *similia similibus curantur* more devoutly believed in than at the present moment, and every member of "our school," no matter what his views of posology, stands like a rock upon this. They do not pretend to be nothing other than homœopaths, but claim to be physicians, and to practice homœopathically, and this does not debar them from practising surgically or any other way that judgment may dictate in a particular case.

Several years since the Homœopathic Medical Society of the County of New York passed the following resolution, which, although rescinded afterward by the Society, was endorsed in writing by a large number of the

members of the Society, the original of which, with the signatures, is before us as we write.

The resolution is as follows:—

"Resolved, That in common with other existing associations which have for their object investigations and other labors which may contribute to the promotion of medical science, we hereby declare that although firmly believing the principle *similia similibus curantur* to constitute the best general guide in the selection of remedies, and fully intending to carry out this principle to the best of our ability, this belief does not debar us from recognizing and from making use of the results of any experience, and we shall exercise and defend the inviolable right of every educated physician to make practical use of any established principle in medical science; or of any therapeutical facts founded on experiments and verified by experience, so far as in his individual judgment they shall tend to promote the welfare of those under his professional care."

At the last meeting of the American Institute of Homœopathy, in order to call more particular attention to that clause of the code of ethics bearing upon this point, the following resolution was adopted with one dissenting vote:

"Resolved, That it is the sense of the American Institute of Homœopathy that no physician can properly sustain the responsibilities or fulfill all the duties of his professional relations, unless he enjoys absolute freedom of medical opinion and unrestricted liberty of professional action, as provided for in the code of ethics of this Institute."

That we as a "school" are "regular," no one who accepts Worcester's definition, which is as follows, can deny:

"Regular: 1. Conformable to rule; agreeable or according to rule; agreeable to an ordered or prescribed course; consistent with the mode prescribed; directed or controlled by a rule, or by rules; conformed to strict regulations; methodical, orderly, formal.

"2. Instituted or initiated according to established rules, forms, or discipline. 'A regular doctor.'"

We also hold, as a "school," that "a regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession;" and we also accept the aids actually furnished by anatomy, physiology, chemistry, and all the collateral sciences, so far as they may be found as such.

And notwithstanding all this, we are denounced as "irregular" by some who ought to know better. Our "irregularity" consists in the fact that experience has taught us that drugs, under certain circumstances, act more curatively when administered according to the principle of similars, and in all else we would be counted as "regular," even by our antagonists. We must admit, greatly to our regret, that we are obliged to carry many "cranks" and other eccentric individuals, who weigh us down heavily at times, but on the other hand, our "old school" friends have had their "Cundurango" and are now having their "phenic acid" craze, and we have no right to charge each other with the responsibility of any of these idiosyncratic irregularities. Their authors are parasites which are liable to attach themselves to the nearest body which offers any appearance of being able to bear them, and will continue until time with its health and vigor shall show that the soil is not congenial to their development.

If the "old school" is in earnest, and really wants an answer to this question, it will have no difficulty in finding it, but the first step is to study the subject proper,

and ascertain wherein its own principles differ from those of the "school" which it proposes to deal with.

In order to obtain truthful and reliable data as to the tenets of the two "schools," we propose that a commission be appointed, of leading men in each, which shall frame a platform sufficiently broad for any physician who lays claim to being a scientist at all, to stand upon. Then submit the result to the respective societies for consideration, and if the members of these are governed by honest purpose, and have no desire to make capital out of a distinctive title, and prejudice is not allowed to enter the consideration, we shall see a union which will effectually solve the problem which is the subject of this article.

Our "old school" friends need not be alarmed lest laymen be deceived as to the true status of the ethics and of the principles underlying this subject, for great numbers of them already understand both, far better than those professing so much solicitude in their behalf. Our most intelligent patients have no difficulty in determining the sphere of homœopathy, and know well that it does not pretend to apply to every case of disease!

The *Nation*, in its editorial entitled, "Doctor and Patient," hit the nail so squarely on the head and with such force that it took nearly a column of quibbling by Dr. Squibb in the *Evening Post*, to attempt an answer, and even this is effectually disposed of in a few lines editorially.

When we can point to such addresses as that delivered by Hon. Montgomery Blair, before the "National Homœopathic Hospital Association" in Washington, and published in full in the *American Register*, we may feel a just pride that laymen have sufficient interest to be equal to so much intelligence upon this subject.

He says:

"The prosecution and proscription given to the Christian doctrines by the priests and Levites is reproduced in our day by the teachers and leaders in all departments of human life towards any teacher of new doctrine, modified only by the changed circumstances of the age; and it is not until the new teacher finds support and backing among the people sufficient to force the doctrine upon the attention of the old school that they will give it any quarter.

"Homœopathy has been undergoing this ordeal for nearly a century. It does not matter that homœopathy was, like that of Harvey and Jenner, the discovery of one of the most cultured minds of the medical profession. It was sufficient that it was the announcement of a new principle which revolutionized treatment to make it repulsive to the fraternity for the time being, and to cause them to make war upon it and upon the discoverer and his disciples at a *l'outrance*.

"Hahnemann's history shows that the medical high priest shares fully the venomous and vindictive spirit of the religious high priest. They could not take his life. Happily the day has passed when bigotry of any kind is permitted to assuage itself with the blood of its victims. It can only slay them by war on their character and pursuits in life. The medical bigots of Hahnemann's day, and even of our day, thus pursued him and still pursue him and his disciples relentlessly. The resentment of the property holders against the communist and the burglar is not more vindictive. Of course no investigation has been made or can be made of the truth of the principle asserted by the homœopaths by men animated by such a spirit, and the fact that no investigation of the subject has been made by them is admitted by the *Medical Record*, a leading organ of the regular brotherhood.

"It is manifest to all intelligent observers that the time is rapidly approaching when the faculty will be forced to consider homœopathy with some other purpose than to rail at and ridicule it. The action of the New York State Medical Society authorizing its members to consult with homœopathic practitioners, the admission of the *Medical Record* that the Hahnemannian principle alone makes therapeutics a science, the abandonment of bleeding and purging, the reduction of doses by the allopaths and their administration of homœopathic remedies to the extent now common among them, are concessions to the growing public sentiment in favor of homœopathy, which show that a great revolution is at hand. It is impossible to overestimate the importance of this change to the human

race, for when all the learning and genius devoted to medicine in our age shall by this change be directed to the application of the Hahnemannian principle, medical science will advance to a degree of usefulness and of popular confidence which it has never yet attained.

"It is the acknowledged empiricism of the profession which fills the apothecary shops with quack medicines, and they can only abolish quackery and deserve and receive the confidence of the people by themselves accepting and applying a principle in treatment. If homœopathy was only what its opponents represent it to be, the administering of infinitesimals which they contend can neither help nor hurt, it would not be more ridiculous than allopathy. Both would be systems of empiricism and we should have to rely upon the results as tests of superiority. We could not assume upon *a priori* reasoning that drugs in big doses would cure better than drugs in infinitesimal doses. No medicinal substance is traceable in the waters of some of the most famous springs in our country. The water of the Hot Springs of Arkansas is found to be a specific for the most dreadful diseases that flesh is heir to, and hitherto without remedy, and the Eureka Spring is thought to be effective in cancerous affections. The Summit Spring in Maine and the Gettysburg Spring in Pennsylvania, are also found to be restoratives in many cases. In neither of these is any medical substance traceable by analysis. Yet it is certain that these waters produce positive remedial effects. But the evidence of it is not stronger than that such results are also produced by the administration of drugs in what are called infinitesimal doses, and they are quite as probable in themselves as the cures wrought by the infinitesimals contained in the waters of these celebrated springs.

"And tested by no other standard than well-attested observed results, the infinitesimal would certainly be the better system than the allopathic. Sir John Forbes, the Queen's physician, in his treatise entitled 'Nature and Art in the Cure of Disease,' speaking for the allopathists, acknowledges that they know of but one specific, quinine, and he says further that there is such uncertainty as to the effects of their other remedies and that there is so little reason for thinking them beneficial, that of every 100 cases of recovery, it may be safely assumed that 90 would have recovered without any medicine at all. Sir John was at the head of his profession and a man of elevated character, and gives a candid expression in his book to the results of a long experience and a fine judgment. Against this the different idea which largely prevails in his school that art is everything and nature is nothing in disease will go for nothing.

"And if we accept Sir John Forbes' judgment as to the uselessness of allopathic drugging, for that is what it amounts to, it follows necessarily that there is no justification whatever for it, and that it is a great error to subject a man already feeble from natural disease to the additional danger and suffering of an artificial disease caused by administering heavy doses of drugs, and that it would be altogether safe to leave the struggle for life to nature's forces unimpaired by violent remedies.

"Hence homœopathy would be plainly preferable to allopathy if it were assumed to be altogether inert. But it does not follow because homœopathy is harmless, and no reason can be given for its effectiveness that it is inert. No explanation can be given for the effectiveness of the waters of the springs above mentioned. Nor could we explain them if able to show that they corresponded with and proved the Hahnemannian law. We cannot explain gravitation. And it is not necessary to be able to explain either law to enable us to apply to useful purposes.

"And whilst we cannot explain the existence of this or of any other natural law, we can see that it is not repugnant to any known law, but harmonizes with them all. Thus we know that a push given to one who is walking or running in the same direction, checks his movement, and if repeated will arrest it; that grief is assuaged by sad and sympathetic music or language, not by gay music or sprightly talk; and Shakespeare makes Petruchio tame his Catherine not by repression, but playing the shrew himself. And it may be said without irreverence that the soul of the sorrowing men are ministered to in like manner by the 'Man of Sorrows' who was acquainted with grief. There is, indeed, certainly reason for thinking that the power to heal body, mind and soul, must be assimilated to their affections. This seems to be the principle which pervades human nature.

"And having found as a fact that certain medicines when administered in large doses produce on certain organs in health symptoms resembling those of certain natural diseases, we can understand why minute doses of the medicine will affect these organs when diseased, although the doses are smaller than would be operative in health. This is because the susceptibility of the organ is so heightened by the disease as to make it sensitive to a quantity of medicine which would not affect it in health, just as the smallest ray of light which would not affect the eye in health, becomes painful when the organ is inflamed.

"This analogy may aid us in conceiving how minute doses may be harmless because too small to affect the healthy organs, and yet when applied to diseased organs may be helpful because the disease renders the organs peculiarly sensitive to the medicines which affect them in health, and the proper medicine in the smallest quantity may therefore affect and produce reaction on the organs against the disease by which it is affected.

"But it is not necessary to explain how this slight and safe intrusion of an analogous affection upon a diseased organ causes reaction by the vital forces and facilitates recovery and probably saves life by calling them into action before exhaustion. It is enough that it has been ascertained with almost absolute certainty by the systematic and close observation of multitudes of conscientious and skillful observers that this is the effect of this delicate and scientific mode of dealing with the vital powers.

"To all reasonable, practical, and candid minds, the concurrent testimony of 6,000 educated physicians throughout the country who

are daily acting upon the Hahnemannian law, and the millions treated by them, should be conclusive against the mere pre-conception of any number of men, however learned, able and conscientious, who refuse to consider the subject at all. To the unskilled nothing is more incredible in itself than a telegram, but we all read in the morning papers the events of yesterday in the remotest parts of earth, without doubting that the words came from those parts. But the manipulation of the life forces by the Hahnemannian law is scarcely a more delicate process than that of the electric fluid by which this information comes, and the fact that such manipulation can be had is not more incredible in one case than in the other, and hence it is not less irrational to reject the positive proofs of the operation of the Hahnemannian law than it would be to refuse to read a telegram. Having stood the test of human scrutiny for near a century, and having steadily gained adherents whenever it has been investigated, without losing any, it may be safely stated that no physical law beyond the range of exact science can be regarded as better established than the Hahnemannian law."

And these are the arguments of a layman, and they bear the imprint of scholarly and thoughtful judgment!

One cannot have watched the drift of public opinion both professional and lay, particularly for the last two years, without coming to the conclusion that the medical school of the future, to be "regular," must include the principles upon which homeopathy depend to-day. These principles may be absorbed in an underhanded and dishonorable manner, *à la* Ringer, Phillips and others, even with the denial of homeopathic proclivities, but the principles will be there nevertheless, together with the disgrace of a reasonable charge of plagiarism.

A REPORT ON THE GUTEAU AUTOPSY.

The profession has been furnished with three versions of the autopsy in this case, and we subjoin the one entitled the "majority report," because it seems to us more complete and carefully made up than at least one of the others.

The bungling and unsatisfactory manner in which the post-mortem was made, is a disgrace to the medical profession of the nineteenth century, and after the experience in the case of the victim of this assassination, we had a right to hope for the avoidance of 'prentice work in so important an investigation.

The director of this investigation must be charged with gross ignorance, or else culpable carelessness, in not providing the proper instruments and appliances to enable suitable research to be made in such an undertaking.

Dr. Lamb in his report, so far as we have seen, does not even refer to the condition of phimosi, which Drs. Sowers and Hartigan mention, and which is the most important point obtained in the investigation!

It is not a little remarkable that this condition was not ascertained by some one of the numerous experts *pro* and *con*, who testified during the trial!

Any one who has ever had experience in the treatment of the insane, well knows the mental reflexion which this simple condition is responsible for. There are on record many cases of monomania which have recovered after the operation for phimosi, and in these a variety of phenomena have manifested themselves, and they are very much in the line of those developed in the assassin Guiteau. How much this condition may have had to do with Guiteau's responsibility, there is no way of determining; but judging by comparison with other cases of a similar character, the question certainly arises as to whether he was not afflicted with monomania depending upon the reflex irritation induced by

phimosi, and the further query meets us as to whether this state of things should not have been found out by those in charge of the case.

Excessive pride, self-importance and ungovernable temper, are some of the more frequent mental disturbances dependent upon phimosi, and the history of Guiteau's case embraces all these. There appears to be nothing especially worthy of study pathologically, in connection with the brain or its membranes, and we have no idea that the microscope will reveal abnormalities in the minute structure which will be of the slightest consequence.

The text of the report is substantially as follows:

DESCRIPTION OF THE BODY.

The examination was conducted nearly as follows: The body being placed in position it was found to be still warm, the eyeballs slightly protruding, limbs flaccid and well rounded by adipose tissue. It was that of a man five feet five and three-quarter inches high and weighing 135 pounds. The skin bore a yellowish tinge over the general surface. There was a slight discoloration on the left side of the face, and a brownish red mark, made by the rope, was observed just above the thyroid cartilage and extending about three-quarters around the neck, the knot slipping from the left to the back of the neck. There was phimosi and accumulation of smegma.

"The pupils were both slightly dilated, the dilation in both being equal. The conjunctiva of left eye slightly congested. Vitreous hazy, with copper colored reflex; fundus of both eyes undistinguishable. Two hours later condition of eyes the same, with appearance of transverse fracture of both lenses. These appearances were due simply to strangulation."

A longitudinal incision was made by Dr. Lamb, with the view only of exposing the contents of the thoracic and abdominal cavities as was understood by us. This incision extended from the top of the sternum to the pubis, and showed adipose tissue to the thickness of about an inch. While this was in progress Dr. Hartigan made a vertical incision through the scalp, sawing horizontally. The partially detached calvarium remained in such position until Dr. Lamb had removed the lungs and heart and cut through the great vessels. On dissecting back the flaps a venous effusion was found in the right pectoralis major muscle, near the second rib; the dome of the diaphragm reached up to the fourth rib; slight pleuritic adhesions were found mostly in upper portion of each side. The pleuritic cavities contained a little serous fluid.

The lungs were slightly congested; a few small bodies resembling miliary tubercles, such as are commonly seen, were found in the middle part of the left lung, near the outer external surface. Every other essential feature of both lungs was found normal. The lungs were then removed and the heart was next examined.

The Heart.—This organ weighed 10½ ounces; it was firm and contained a soft clot just forming in the right ventricle; the left ventricle was empty. A large amount of fat was deposited on the entire anterior surface, and a villous patch, or old inflammatory spot, was seen on the left ventricle, near the apex; valves normal. There was slight atheroma at the beginning of the aorta, which could probably be accounted for by high living and confinement. More than two quarts of liquid blood, warm and free from clots, had now escaped into the chest cavity from its various sources.

The Abdomen.—A large amount of fat covered the viscera; the stomach contained food; the liver was congested, otherwise normal; the gall bladder contained a small amount of bile; the spleen was lobulated and enlarged; Malpighian bodies were quite prominent; the organ weighed fifteen ounces, showing the influence of previous malarial attacks while in jail, etc.

It may be proper to remark that the deceased trembled perceptibly on the gallows before the drop fell, as we have since learned from the guard who pinioned him.

The Head.—When the foregoing was completed the head was then proceeded with. The first thing noticed was a scar on the scalp an inch long, situated longitudinally just above and behind the left temple; but there was no corresponding mark upon the skull. The right parietal bone was slightly flattened in its upper and anterior part, covering about two inches square and terminating at the coronal suture. This flattening was confined to the outer plate, and was at the expense of the diploic structure, as there was no bulging of the inner table immediately beneath that could be discerned. It was regarded as such a trivial nature as to make it unnecessary to take accurate measurement by transverse sections of the skull at this point or to remove the skull to the museum for more minute examination, and was buried with the remains. There were no other points of asymmetry noticeable. The cranial sutures were distinct. There was no visible trace of a frontal suture, the two halves of the frontal bone being thoroughly welded. On the inner surface of the skull the usual bony prominences were well marked, also the Pacchionian depressions. No abnormalities were discovered. The thickness of the skull was not measured, owing to the lack of facilities, but to the unaided eye it was normal. The diameters and cubic contents of the skull were not taken nor the relative size of the forame, owing also to the lack of facilities.

CONDITION OF THE BRAIN.

The Brain Membranes.—The dura mater was quite strongly adherent in places to the inner surface of the skull—viz., near the

trunks of the middle meningeal arteries, also near the longitudinal sinus in front, but could be stripped cleanly from the bone at all these points of attachment. As there was no roughening of the skull here or elsewhere there was no exudation on any part of the inner surface of the dura mater. Quite a number of Pacchionian granulations were distributed along the course of the longitudinal sinus. The cerebral sinuses contained but little if any blood. The dura mater, pia mater and brain were adherent to each other on both sides along a limited portion of the longitudinal fissure adjacent to the Pacchionian granulations.

The Arachnoid.—There were very well marked milky opacities of the arachnoid, but no apparent thickening, extending over the upper portion of the convex surface of the hemispheres only, as elsewhere the membrane was perfectly normal. These opacities were confined to the upper portion of the sulci in this vicinity exclusively, and were such as are often found without previous history of disease. The sub-arachnoid space contained very little fluid; pia mater was easily stripped from all parts of the brain.

The blood vessels of the membranes and brain were empty and the general appearance of the brain was anemic or bluish. Both these conditions can be readily accounted for by the unfortunate removal of the lungs and heart and the severing of the large blood-vessels by Dr. Lamb before the brain or its membranes were exposed or examined, and on this account nothing of importance was attached to this condition, as the blood that was in the brain at the time the autopsy was commenced had an opportunity at least of making its exit into the chest cavity. Sufficient examination was made of the large blood vessels of the brain to determine that they were in a healthy condition.

The Brain.—The brain entire, with a portion of dura mater attached, weighed forty-nine and a half ounces, about the average weight for an adult male. Just how much more it would have weighed had it not been drained of its blood and had the scales been more delicate, we are unable to say, but certainly it is safe to assert that it would have been considerably more. The consistence of the brain was normal, its specific gravity and measurements of its chords and arcs could not be obtained, owing to the lack of facilities. There was no apparent asymmetry of the two hemispheres. As regards contour and shape exact studies were not made, and the comparative weights of the different parts were not obtained. The cerebellum was well covered, the occipital lobes were not noticeably blunt or sharp.

PECULIAR APPEARANCE OF THE BRAIN LOBES.

Lobes and Convulsions.—Frontal lobes seemed well developed, but presented a peculiar appearance, due to the arched condition of the floor of the anterior fossae of the skull.

Frontal Lobes, Left Side.—The first frontal fissure was quite long; it was broken by a single bridge near the junction of the anterior and middle thirds. The secondary fissure was well marked, so much so that it seemed almost to form an independent primary fissure. The second frontal fissure was well defined, but interrupted by four small concealed connecting convulsions; it communicated with the first by a cross fissure and was not confluent with the pre-central fissure. The pre-central was well defined and not confluent. The convex surface of this lobe, as a whole, was marked with an unusual number of cross and other secondary fissures. It was not of a confluent type, but showed a marked tendency to the four convolution type. The orbital surface showed a radiate orbital fissure, starting from a single central depression or fissure. There were five radiate fissures from this centre. The olfactory fissure showed nothing peculiar.

Frontal Lobes, Right Side.—The first frontal fissure was well defined; it was non-confluent, except that at its posterior extremity it communicated with a deep cross fissure. The secondary fissure was a typical one. The second frontal fissure was well defined and non-confluent. The orbital surface was well fissured. The orbital fissure branched off from a small isolated central convolution in seven different rays. The right frontal lobe had an unusual development of secondary fissures like the left lobe.

Parietal Lobes, Left Side.—Fissures of Sylvius. There was a partial confluence with the first temporal, and also with the fissure of Rolando. In other respects it was normal. The fissure of Rolando was defined and not confluent. The pre and post-central convulsions, as well as the pre-central lobule, were large and well developed. The retro-central fissure was well defined and separated from the inter-parietal by a small concealed connecting convolution.

Parietal Lobes, Right Side.—The fissure of Sylvius was normal on this side. The fissure of Rolando was the same as on the other side, except that it extended slightly into the longitudinal fissures, fissuring the para-central lobule. The para-central lobule was quite small as compared with that on the opposite side. The retro-central fissure was well defined and confluent with the inter-parietal.

The Left Side Under Surface.—The island of Reil was well covered. Seven straight fissures and eight convulsions were present. The inter-parietal fissures began at retro-central and ran a well defined course, ending in the transverse occipital, from which it was separated, however, by a small convolution. It had no complete confluences.

Right Side Under Surface.—The island of Reil was well covered and had five straight fissures and six convulsions. The inter-parietal fissure began in and was confluent with the retro-central. It was well defined.

Temporo-Sphenoidal Lobes, Left Side.—The first temporal fissure was slightly confluent with the fissure of Sylvius and was not so long as usual.

On the basal surface the anterior temporal fissure was well defined and not confluent; the fusiform lobule was smaller than on the opposite side.

Right Side.—The first temporal fissures was normal in length; no confluences. On the basal surface the inferior temporal fissure was normal; it was completely confluent with the collateral fissure, which was well defined, but shorter than that on the left side.

The Occipital Lobes.—The anterior occipital, or Wernicke fissure, was present on each side; it was well defined and non-confluent. The right transverse fissure was well defined, beginning on the mesial surface and passing out with two small interrupting convulsions. The left transverse fissure was well defined. Thus, of the three fissures which combine in apex to form the apex fissure—viz., the second temporal, the anterior occipital (Wernicke) and the transverse occipital—two were only normally defined.

FURTHER MINUTE DESCRIPTIONS OF FISSURES.

Mesial Surface, Left Side.—Callosal-marginal fissure normal. Above this was a secondary fissure, running parallel to it, and ending about opposite the termination of the first third of the corpus callosum. On the right side, the callosal-marginal fissure was continued on through the pre-cuneus to the parieto-occipital fissure, from which it was separated by a small convolution. The secondary fissure was more developed than on the other side, and extended further back.

Interior of the Brain.—The anemia and pearl-like appearance which existed might be readily accounted for by the thorough draining before alluded to. The gray cortex was of usual thickness, notwithstanding the measurements necessary to determine this were taken about four hours after removal, while the brain was in a soft, almost creamy condition, due to the excessive heat of the day and much handling. The ventricles were empty. Cerebellum, pons and medulla, so far as observed, presented nothing peculiar.

THEOLOGY AND MEDICINE.

No two professions are so closely linked together as those which look after the welfare of the soul and the body. The ranks of these professions are full, and as we have looked at their acts in the light of common sense the terse expression of Herodotus, when he defined the hosts of Xerxes as "many persons, but few men," has often occurred to us. The English Church, to go no further back than a century, drove the Methodists from its communion, who were loth to leave, and would not have left if it had been possible for them to remain. Instead of utilizing their piety and zeal within the church, by concessions, without the slightest violation of principles, they were forced to leave it, and to-day there is hardly a churchman who does not regret the blindness which cost the church the loss of millions who now form the various Methodist sects; and yet it seems to have learned nothing from past experience, for it is to-day repeating the same tactics in its war upon ritualists. Clergymen are sent to prison or deprived of their parishes, not for violating the canons of the church, but for a difference of opinion in regard to certain forms and ceremonies in church worship.

In the same way, the new school in medicine, starting within the ranks of the dominant school, asking simply for liberty of investigation and freedom of action, was forced, contrary to its wishes, to set up a standard of its own, around which it could rally, and under which it could work in the line of scientific investigation untrammelled by the shackles of sect or the dictates of little minds. The work of that school is written in the history of the last century. Nearly all the tremendous strides made in therapeutics have sprung from its investigations, and the seed planted by it with earnest, honest toil has ripened into full fruit under its fostering care. Much of it has been appropriated to the use of those who curse the hand that gave it to them. Verily, as we look upon the action of the Church Association in England and the American Medical Association in the United States, we are constrained to repeat Herodotus' description of the hosts of Xerxes, as "Many persons, but few men."

BIBLIOGRAPHICAL.

ELECTRICITY IN SURGERY. By John Butler, M.D.
New York: Boericke and Tafel, 1882. Vol. VIII.,
pp. 111.

This little brochure, which is intended as a practical guide in all electro-surgical operations, is based upon the author's extensive personal experience, and presupposes a knowledge of the rudiments of electro-physics on the part of the reader. The "introduction" treats of the general principles of the subject, indicates how the amount of current can be calculated, in order to obtain a desired result in a given case on exact scientific grounds, and then we are told how to perform electro-surgical operations with precision, in a variety of affections, amongst which are an original point respecting operations for hydrocele and cysts with fluid contents, by making the needles traverse and come in contact with the lining membrane, also an original operation for stricture of the urethra with a cut of the instrument to be used. The suggestions as to the treatment of aneurism and of fibroid growths are both new, novel and certainly deserve the practical test of clinical application.

The work is eminently practical, the *modus operandi* sufficiently clear and concise, and cuts are given of the various instruments employed.

The expert in this department will find much of interest and of service in this little work, while the inexperienced may learn something of the vastness of the field to which this wonderful agent may be applied.

SUPERSALINITY OF THE BLOOD.—An Accelerator of Selinity and a Cause of Cataract. By J. Compton Burnett, M.D. London: the Homoeopathic Publishing Company. Pp. 90, 16 mo., 1882.

The author having come to the conclusion that the habitual use of too much salt has a drying-up, a senescent effect upon the organism, and that some cases of cataract are likewise due to this habit, he gives in this little volume the results of his observations, together with those obtained by Kunde, Kornhorn and Richardson in the same direction. His deductions are worthy of consideration, and his book is certainly a very readable one.

CONTRIBUTIONS TO PRACTICAL GYNÆCOLOGY. Illustrated with sixteen Wood Engravings. By S. James Donaldson, M.D., Fellow of the New York Medico-Chirurgical Society, Surgeon to Gynecological Wards, Ward's Island Hospital. New York: J. H. Vail & Co., No. 21 Astor Place. Pp. 136. Price \$1.25.

We have before us an interesting work of one hundred and thirty-six octavo pages, with the above title. The text is bold and vigorous in style, and evidently the work of much careful study. While departing somewhat from stereotyped views as to the etiology and mechanical treatment of uterine displacements, the author manifestly holds the most practical opinions regarding the subject of which he treats.

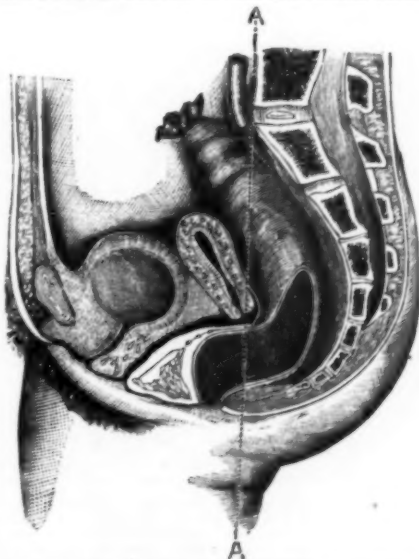
Dr. Donaldson begins his discussion by a consideration of the growth and present standing of gynecology. He questions if there has been such remarkable progress made as is generally believed, in the ordinary anomalies, such as dislocations, dysmenorrhœa, and kindred affections. He is inclined to the opinion that more harm than benefit has resulted from the treatment of these abnormalities by unskillful manipulation and ill-constructed appliances, as well as the innate tendency of the majority to run tandem after certain leaders, following stereotyped ideas instead of adhering more closely to the common sense views always to be found in the teachings of nature. He maintains that for years we have been attempting to accomplish results which the use of the absurd instruments usually adopted has almost invariably defeated, and says:

"The parties who are really culpable in this matter are the teachers who, through ignorance or indifference, have inculcated erroneous ideas by incorrect assertions or through the use of ridiculous diagrams. These have done more to embarrass and perplex the after lives of students than can be expressed. Better far that intelligent minds be left free to practice in accordance with the suggestions of independent reason, than be compelled to spend years in perplexity trying to unlearn these college-received fallacies. Look, for example, at any of the numerous absurdities that disgrace our most popular text-books. In many of these diagrams it would appear that the design was to adapt the pelvic organs to the conformation of some instrument, and to display its mode of adjustment, which by the illustration is made to look quite feasible; but when we put it to the actual test, we soon learn how completely we have been misguided and discover its entire impracticability. If we found these caricatures in some ancient medical work, we would pity the ignorance of the past; but to encounter them repeatedly in our most modern standard works, is an annoyance most difficult to tolerate.

Then follows a number of familiar diagrams copied from the text books, and usually employed by them when dealing with the subject of the female pelvis, and their misrepresentations, as well as peculiarities, criticised.

Among these is found the recent pelvic diagram by Dr. Thomas, concerning which he remarks:

"The author's mind seems to have been so entirely absorbed by his dominant idea—the demonstration of the perineal functions—that he is apparently oblivious to all other cardinal principles. Taking it in detail, we notice that, while the dilated vagina is discarded, the absurdly exaggerated rectum is repeated. The pubic bone is so placed as to be utterly useless in regard to visceral support, while its normal place is occupied with a representation of a mass of tissue which in nature does not exist. The sacral prominence is placed far in the rear, if we are to be guided by the thigh and other parts represented. The dotted line showing the axis of the body, A A, I have taken the liberty of adding, to aid us in drawing our comparisons. In other respects, this cut is an exact reproduction of the original.



"Now, if we apply the callipers to these parts, we will find the pelvic diameters greatly exaggerated. Surely, if this be the author's idea of a normal pelvis, we cannot marvel at the importance assigned the perineal function, which he designates 'the keystone.' Were the pelvis thus constructed, it would indeed require a remarkably developed perineum to withstand the superimposed forces to which it would be subjected."

We agree with Dr. Donaldson that the illustrations should harmonize with the text, and that many of the text book diagrams are "pictorial stumbling blocks." This part of the discussion he closes with a sketch of the female pelvis and trunk.

"We take for our fixed point the pubic bone, and measure, at an angle of sixty-two degrees with the horizon, four and one-fourth inches, and there fix the sacral prominence. Next we measure

from the centre of the pubic bone, at an angle of forty degrees, four and one-half inches, and fix the hollow of the sacrum. From the inferior border of the pubic bone, at an angle of twelve degrees, we measure four and a half inches, and place the point of the coccyx. Guided by these points, we represent the sacral, coccygeal, and pubic bones. We have now the frame work of the pelvic walls. After outlining the trunk walls with proper curves, we proceed to place the pelvic organs. We make the measurements of the vaginal walls—anteriorly three inches, posteriorly four inches, as an average—and fix the entrance to the vagina three-fourths of an inch below the pubic bone. Now come reminiscences of our early speculum and pessary experiences. Fresh from college training, we possessed the stereotyped ideas, and expected to find a vagina following the pelvic curve, leading into the abdominal cavity, with the os uteri looking

were rife in those days, and we blush to contemplate the curious instruments left upon our hands, with which we then strove to prop up the uterus and teach it a new position. Fortunately for our patients, we became discouraged with our useless efforts, and desisted, when, much to our chagrin, the sufferers usually improved. So we began to question if it might not be ourselves who were at fault instead of the much abused uterus.

From careful anatomical observation, we find that the uterus naturally looks backward and downward to the second coccygeal bone. At right angles with it the vaginal axis points into the hollow of the sacrum, in the direction of the third sacral bone. Keeping these facts in mind we proceed in our delineation, and draught the uterus and vagina with proportionate dimensions, and find we have the uterus safely ensconced beneath the overhanging arch of the sacrum. After representing the bladder and soft structures, we next define the axis of the body. This imaginary line, A A, in a properly poised body, extends from the vertex, through the trunk, touching the anterior surface of the second lumbar vertebra and the inferior border of the pubic bone downward to the point between the plantar arches. Having drawn a line, B B, at an angle of sixty-two degrees, to represent the plane of the pelvis, we draw another, C C, to represent the pelvic axis. And now the beautiful mechanism of the female pelvis reveals itself. Notice how these lines intersect each other at a definite point. Observe the home of the uterus bounded by these lines and sheltered by the protecting arch of the sacrum, while, in the angle below, the bladder, admirably situated, acts as a grateful cushion. Look also at the graceful, receding curve of the dorsal wall; conceive how an impulse, glancing down this incline, must be projected downward and forward to expend its force upon the resilient concave abdominal wall, while the reflex current will move in such a direction as to really lift the pear-shaped uterine body toward the arch. Consider the position of the os pubis, how it is the centre of gravitation for the abdominal viscera, while not an ounce of weight is allowed to rest upon the womb."

Concerning the etiology and treatment of displacements, the author attaches great importance to the posture of the body, and states that

"A firmly poised body is a necessity to the maintenance of that harmonious antagonism of all the muscular support and balance of the various members of the body. But where one part of the active fibre is unduly tense, with a corresponding portion lax, we need not expect to find the organs sustaining their normal position. Moreover, with a truncal deviation the resistant structures, such as the pubic bone and sacral prominence, are diverged from their full and proper functions, and no longer afford sufficient support and protection. With the shoulders advanced and the dorsal region retracted the body loses its graceful contour by the straightening of its curves, and the truncal tube becomes, to a certain degree, straightened. The centre of the visceral gravitation is no longer through the powerful pubic bone, but through the pelvic curve; consequently every concussion and pressure from above is received through the soft and yielding pelvic tissues, and these gradually yield under the superimposed influences until dislocations and prolapsus become established. It must be understood, when we speak of the erect position, we include the sitting as well as the standing posture. Assuming an incorrect pose while sitting is a more universal habit, and demands more attention than any other, from the fact that so much more time is spent in sitting than standing."

After criticising the positions usually assumed, and condemning the faulty construction of the modern chair, for producing much mischief, the horizontal position is considered and reasons given why the semi-prone position should be observed. He discusses at length the importance of exercise as influencing the condition of the female generative organs, after the following manner:

"We are aware that the body is composed almost entirely of capillaries, and upon capillary tonicity depends the health of the body; for instance, inflammation is simply an increased determination of arterial blood to a part whose capillaries have lost their contractile power and become dilated, while passive congestion is simply an expression of relaxed vital resistance of the capillary walls. Now the lack of exercise produces this degenerate, dilated condition of the capillaries, thereby creating general blood-stasis, which is a form of death. By exercise we secure the constricting of these minute blood-carriers through the stimulus of alternate contraction and relaxation of the muscles. Some pathologists maintain that there is but one essential proximate cause of disease, viz., the loss of vital resistance and the enlargement of the capillary vessels. The indication then would be, that the cure of disease must necessarily be preceded by the constricting of the capillaries and a restoration of their contractile power."

Forcible defecation is also cited as one of the chief factors in producing prolapsus, regarding the treatment of which he makes these pertinent observations:

"It is safe to state that there is no disease more readily cured or more universally maltreated, than constipation. Physicians, as well as laymen, from time immemorial, have run foolishly after cathartics. They have seemed possessed with the idea that the disease lay materialized somewhere along the alimentary canal, waiting to be dislodged by some brisk purgative. So firmly established is this pernicious practice that it is combated at the risk of losing caste. The child no sooner breathes than it must swallow a portion of physic, and from that moment until the hour of death the intestinal tract must be tortured by the use of drugs. It is by this

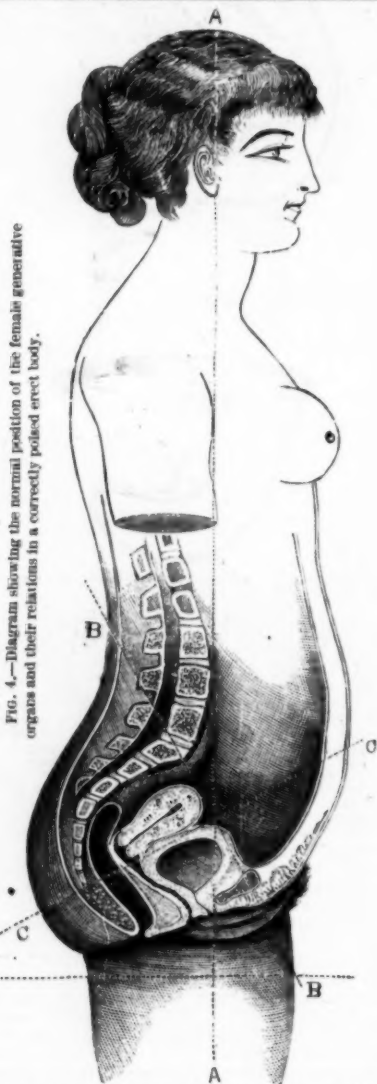


FIG. 4.—Diagram showing the normal position of the female generative organs and their relations in a correctly poised erect body.

directly into the tube. How great was our perplexity to find the vagina dipping backward toward the hollow of the sacrum, with the uterus at right angles. What strenuous efforts we made to induce our pessarists to occupy what we then regarded as their proper place! But strive as we might, they persisted in lying in the axis of the vagina, which pointed directly into the hollow of the sacrum, while the poor uterus, as if conscious of the mischief which had befallen it, seemed striving to evade our inspection. Anteversions

injurious practice that constipation is greatly augmented, for I challenge the world to produce a single cathartic drug, given in small or large quantities, which will not, by its secondary effect, induce constipation. Laxatives are our sheet-anchor in diarrhoea, but in the opposite condition they only enhance the difficulty; indeed, costiveness can be created at will by an occasional administering of a purgative."

After a due consideration of practical hygienic laws, the subject of mechanical appliances is next taken up, concerning which Dr. Donaldson remarks:

"The ingenuity of medical men has been exhausted in the search for some effective invention. So earnest and active has been the labor in this matter that, judging from the numerous strange productions, we feel persuaded that not a few have gone daft on the subject, for surely none but men of distorted imaginations could invent and recommend such twisted absurdities as we find in the catalogue of pessaries. Place before an intelligent layman the heaps of abominations which have been invented, advocated and adopted for suffering women, and after examining one by one the unseemly contrivances, of every conceivable shape and material, imagine his confusion as to what manner of organ the vagina might be. The probable design of many of these inventions would perplex even an anatomist. Now then, there is no reason why the vagina (simply because it is elastic and will accommodate itself to any shape or size, from a pledget of cotton to a child's head) should be converted into a curiosity shop. These vile contrivances are a disgrace and dark stain upon the history of gynaecology, and we hope the most of them will soon receive their merited condemnation, and will only be found in their proper place—in the chamber of horrors."

Dr. Donaldson regards prolapsus as simply a disintegration of the vaginal walls, which permits the uterine cervix to advance from its position underneath the sacral arch. Its cure, therefore, consists in restoring these weakened walls to their original length in as non-irritating a manner as possible. His idea of a properly constructed pessary is given as follows:

"Every foreign body acts more or less as an irritant, and therefore should be no larger than is absolutely required, and should be so constructed, whenever feasible, as to be under the control of the patient, who should be instructed regarding its removal and replacement, as she should wear it only when actually needed. It is absolutely necessary that it be so constructed as to allow the vaginal walls to sustain their natural relations; therefore we will make it flat, wider above than below, but never so wide as to stretch the walls of the vagina, bearing in mind the fact that in a prolapsed state the vagina is wider than after reduction. Its length should be sufficient to carry the uterine portion of the vagina so far back as to cause the os to look toward the sacro-coccygeal joint, but it should not be so long as to produce any undue traction on this portion of the vagina, for by so doing we will defeat our object by producing laxity of posterior vaginal wall and may induce areolar hyperplasia at its point of pressure. Add to the foregoing considerations a correct understanding of the vaginal axis, and we possess all the important features of a pessary. Viewed in the light of these principles, what a harrowing study the vast array of these inventions becomes, many of them being a stain upon the good name which alone ever secured for them a recognition."

He maintains that every form of stem-cup pessary is faulty, inasmuch as the uterus must be dislocated forward and retroverted, before the cervix will look into the cup; while if this style of pessary is introduced, with the uterus in its normal position, the edge of the cup is impinged against the anterior surface of the cervix uteri. All forms of vaginal appliances for ante-flexion and anteversion he dismisses as unworthy of consideration.

The following is a description of the author's pessary, with a design illustrating its mode of application:

A copper wire loop bent so as to conform to the vaginal curves, and its approximated ends bent to conform with the perineal angle; this wire loop is covered with soft rubber, which is continuous with a tube of the same material, thereby securing smoothness and softness at the point of exit from the body, a seat of great annoyance with the use of the hard material, this being the experience of all who have used them. We also do away with the unevenness which cannot be avoided where the rubber tube is attached to the hard rubber loop, another important feature. The rubber tube we construct quite light, so as to avoid unnecessary traction upon the instrument. This tube is attached behind to an elastic belt surrounding the body (see Fig. 5). The vaginal portion being of yielding material, is more grateful to the sensitive vaginal tissues. One of the chief ends to be sought for in a pessary (the unconsciousness of the foreign body) is thereby secured. The instrument which constantly directs the mind of the patient to her complaint will certainly fail, in proportion to its irritating qualities. This pessary, besides being made in three sizes—three, three and a half and four inches—is susceptible of modification through the adaptability of the copper wire, and can be moulded to fit accurately the angle of the perineal body. Another recommendation is that it can be easily managed by the patient. The instrument should always be removed at night or while the patient is in the recumbent position, and can be removed and inserted as the symptoms of the patient will readily suggest, and in this way the

weakened tissues may be gradually coaxed and trained back to their former tone, while the use of the support is gradually discontinued. Every physician is well aware of the uselessness of expecting any restorative benefits from an internal pessary worn constantly. In fact, we know that the atrophy of the vaginal walls is only increased by this pressure, just as a splint worn for a long time on a limb produces atrophy.



FIG. 5.—Diagram illustrating Dr. Donaldson's retroversion and prolapsus pessary with the same adjusted.

After months and years of continuous wearing of perfect-fitting pessaries we have removed them only to learn that the tendency to prolapsus is augmented, while frequently the persistent irritation caused by the foreign body develops a chronic hyperplasia of the uterus, with disintegration of the cellular tissues; and thus matters go on from bad to worse with the patient. Again, it is not an unusual occurrence to find that the hard substance produces very troublesome ulcerations, and frequently the patient is forgotten or lost sight of while wearing a pessary, when the instrument may burrow itself into the parts, and fistulae and other distressing accidents occur. From all these objections this pessary is free, and it is the only pessary with which I am acquainted that combines simplicity, practicability, comfort, and a promise of final restoration of the parts affected. While it is free from the objectionable features of other vaginal pessaries, it achieves everything that can be accomplished by any vaginal pessary in every form of prolapsus.

The subject of flexions is next taken up.

First on the list come those distortions which are the sequelae of versions following degeneration of vaginal structures. The os uteri deprived of its normal bearings, the uterine body first totters under its own and superimposed weight, and then proceeds to bend upon itself. Second, those cases which are the product of inflammatory processes; some portion of the uterus or its appendages has been the centre of hyperemia which has caused an exudation of lymph. This circumscribed interstitial deposit, becoming organized, welds the tissue fibres together, producing fixedness and subsequent contraction of the involved textures. In this way the freedom of circulation and normal movements of the uterus are interfered with, while the fundus through this local shortening, is induced to gradually bend over the point of disturbance. Third, there is a condition of atony, in which the uterine walls are flaccid and thin, possessing no power of resistance, and bending from sheer flabbiness.

The author goes on to explain that the cramped condition of the uterine body, together with the twisting of the broad ligaments upon themselves, prevents normal circulation and favors new plastic deposit, and tissue degeneration. Therefore, the first object towards cure is the straightening of the crooked uterus. He states, "If straightened by the use of the sound, we find that it immediately resumes its distortion upon the withdrawal of the sound; any attempt to replace it per vaginam only causes it to oscillate as if pivoted at the point of flexure. He demonstrates by argument and diagrams, that the stereotyped mode of treating flexures by vaginal appliances is reprehensible, inasmuch as the foreign substance is made to press upon the diseased parts, inducing further development of interstitial deposit. He claims also that by these appliances, the uterine body is not straightened, but merely crowded out of the reach of the finger, while it still maintains its bent condition. To prove this fact he recommends the introduction of a fine probe into the uterus after the pessary is *in situ*. Further on the question is broached.

"How, then, can we deal with these chronic flexions? Here we have an elastic, bent organ, presenting no possible opportunity of being straightened by any external treatment. There is but one rational plan to pursue, that is, the introduction of a splint within the cavity of the bent uterus, whereby it can be placed in its normal position and retained there a sufficient length of time, until Nature has, by absorption and new deposit, established the parts in proper condition. There are absolutely but two alternatives: Either to devise and adopt some such mechanical measure, or to abandon the patient to her misfortune, fated to a life of progressive wretchedness. For a long time the necessity of an intra-uterine splint has been felt by the profession, and its merits and demerits freely discussed. Why the stem pessary has so long occupied this debatable position is readily explained. Its indispensability has provided its own advocates, while the crude and evil-looking instruments presented, naturally stimulated an opposition. Surely, the inventors of many of these instruments must have had a very imperfect appreciation of the nature of the highly organized structures under consideration. Fortunately for all concerned, while the uterus is delicately organized and is entitled to the gentlest manipulation, it is also astonishingly tolerant of rough usage. Those conversant with uterine pathology must have been impressed with the oft-witnessed freakishness of the uterus. A womb which will resent the introduction of a sound or even a delicate probe, developing alarming symptoms therefrom, will undergo the ordeal of gradual dilation and gentle deviation to a remarkable extent without evincing any annoyance. Indeed, the uterus is in complete harmony with its whimsical owner. Either is disposed to resent sudden encroachment and rude shocks, and rebel if undue force is applied; while by gentle measures and gradual approaching tactics, the crochets of either may be avoided. This principle cannot be over-estimated; and it demands earnest application in the treatment of these cases, if we would avoid discomfiture."

"The résumé of my experience might be expressed as follows: Those stem pessaries that are rigid and have an external support connected to a band encircling the body are reprehensible, as they necessarily prevent the natural play of the uterus, drag it forward, and subject it to injury from shocks from within and without. Those appliances which have a solid base, or are firmly connected with the vaginal portion, are dangerous, as they preclude the normal movements and vibrations of the uterus and bruise the sensitive os tincæ, while they are wholly impracticable in the treatment of virgins."

"The simple stem with vaginal bulb is unmanageable, as, unsupported, it will drop out into the vagina, or, when used to press against the os by the use of tampons, is liable to work into the cavity of the womb, as the os is very prone to dilate and swallow the bulb, thereby endangering the fundus, and frequently causing us no little embarrassment in the removal. Besides, the daily tamponing of the vagina, which this style of instrument necessitates, is an irritating, disgusting phase, of which the patient and physician become equally weary. The annoying and dangerous complications attending the use of those (seemingly) indispensable instruments has for a long time kept my mind engaged devising some appliance whereby these objectionable features might be done away with. The result of these researches are embodied in the form of pessary which I now present for consideration. Our first requisitions in the selection of an intra-uterine splint are non-irritation and safety. With this object in view I have selected for the intra-uterine splint a silver-plated steel-wire spiral spring, sheathed in elastic material. This coil is about two inches in length, with a diameter of one-twelfth of an inch, and is screwed into a hard rubber button five-eighths of an inch in diameter. In this manner we secure an elastic, light, highly polished, and non-irritating stem, which can be bent to any desirable curve, but when unrestrained is persistently and gently self-erecting. For its retention in utero, and also for its proper guidance in balancing the uterus, I have invented an adjustable vaginal shield in the following manner: A frame of vulcanite varying in length from two to three inches, and appropriately curved. Its approximate extremity (Fig. 7, A) is open and neatly moulded so as to avoid pressure against the urethral ridge and allow the proximation of the vaginal walls. Its distal extremity is slightly bevelled, for the reception of the soft rubber band (Fig. 7, B), which, passes around the end bar, and a German-silver wire that

reaches from either side-bar one and one-fourth inch distant. Upon the upper surface of the inferior reflexion of the band is a socket (Fig. 7, b) for the reception of the stem's button, which it embraces effectively, owing to its shape and elasticity. This band is also perforated in its upper reflexion with a number of eyelet-holes for the

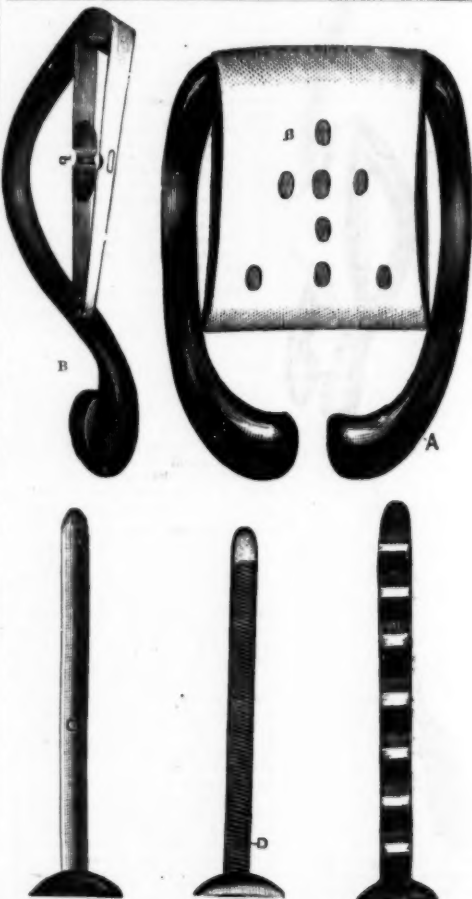


FIG. 7.—Diagram showing Dr. Donaldson's adjustable pessary for cure of flexions. A, shield; B, Section of shield showing band and socket; C, plain flexible stem; D, galvanic stem-copper and zinc wire; E, galvanic stem-copper and zinc bands insulated with vulcanite bands.

various adjustments of the stem, and for the use of the introducing staff, as we shall see presently. The stem is adjusted to the shield by passing it from beneath, through the socket and upper eyelets, and finally causing the button to enter the socket. The insertion of this instrument may be described as follows: First prepare the instrument by passing the introducing staff in front of the wire brace, then back through the eyelets, and cause the staff to enter the stem, by springing the button so as to admit it from beneath the diaphragm. By this manoeuvre the instrument is made to assume a compact and flat parallelism, and is as easily inserted as a Hodge's pessary. (See Fig. 8, A.)

"After lubricating thoroughly with castile soap, pass it into the vagina and guide the point of the stem into the os by the aid of the index finger. When the stem is within the uterine canal, gently withdraw the staff and reinsert it within the stem in the same manner as we would insert the uterine sound, and by its aid complete the adjustment of the parts and instrument as the circumstances may indicate (Fig. 8, B); after which the staff is withdrawn, leaving all *in situ*. The attractive features of this instrument are apparent. It is light, compact, and safe. The stem cannot possibly become misplaced, neither can its bulb abrade the vaginal walls. It is also so pliable that it will not cause any arbitrary pressure of its point against the sensitive endometrium, thereby causing abrasion

and serious irritation, so frequently produced by the rigid stem. The diaphragm of the shield is so resilient that it adds another degree of pliancy to the stem, while the uterus finds in it an elastic cushion. By the aid of this vaginal portion, not only is the disagreeable tamponading abolished, but the vaginal walls are stayed, and by it the stem is made to assume any desirable angle by changing it into a forward, backward, or lateral eyelet. The instrument in this way can be adjusted for the treatment of every form of uterine flexion. The location of the socket is also easily altered by rotating the band. As we have seen, without withdrawing the instrument, we can readily ascertain the position of the uterus by introducing a probe within the cavity of the stem, in the same manner as we introduce the uterine sound; we thereby avoid the irritation produced by the removal and re-insertion of the instrument, and the objectionable manipulation of sounding the uterus."

Subinvolution, superinvolution, and non-development of the uterus, the author ascribes to atony of the capillaries, which is the result of an unbalanced nerve power. We will quote a part of his argument:

"We should not overlook the fact that the blood-vessels are not the only agents in distributing the food supplies to the tissues, but are more properly the canals through which this supply is conducted, being dominated by the nerve-fluid."

"To demonstrate our meaning take the phenomena of digestion. After a full meal succeeds a state of mental apathy and drowsiness; the brain is comparatively inactive. Thus we are told that the digestive organs have engaged the nerve-power, for the time, in converting the food into blood-supply. Should the rights of these organs be violated, by the withholding of the nerve-energy and diverting it to the brain or other parts, digestion is suspended or but imperfectly performed. Should this perversion of the nerve fluid be persisted in, a diseased condition of the digestive organs becomes established."

"Now, who are the women who suffer most frequently from the results of capillary inertia of the generative organs? Nine-tenths of these patients are what may be termed 'branny' subjects."

"Their entire stock of neuric energy is exhausted in literary pursuits, in painting, or more especially upon music. These delicately organized creatures have in some way acquired the belief that to respect the grosser bodily functions, is highly unbecoming, and that it is their duty to starve out all animal propensities for the fuller development of the æsthetic tastes. Against this outrage of nature's laws the nerves cry out, while, like any other neglected or starved object in nature, the abused and ill-nourished organs assume deformities, and perform their functions in a miserable, imperfect manner. In the treatment of these cases, rigorous bodily exercise is paramount; nevertheless, while we may succeed in establishing a perfect general circulation and muscular equilibrium, the longstanding local deformity usually continues."

For the induction of capillary activity, the absorption of morbid deposit, and promotion of healthy tissue formation the intra-uterine galvanic stem is recommended. Dr. Donaldson seems undecided whether the energizing effect of the galvanic stem is attributable to the mechanical and chemical stimulus of this instrument, or to the electricity evolved. The latter theory is maintained by Lawson Tait, and other eminent authorities. He is, nevertheless, convinced by experience that the galvanic stem is an efficient agent in imparting tone to the enervated tissues. There are two forms of instruments recommended, one of alternate copper and zinc wires, in the form of a spiral spring, and flexible;

the other (which he prefers) is an ingenious construction of zinc and copper rings cemented together, and a number of these placed on a vulcanite rod, and insulated with vulcanite rings—the whole secured by a tip of vulcanite screwed on the point of the stem, B. In this



FIG. 8. A.—Diagram illustrating the manipulation of Donaldson's flexion pessary. Pessary in position for insertion.

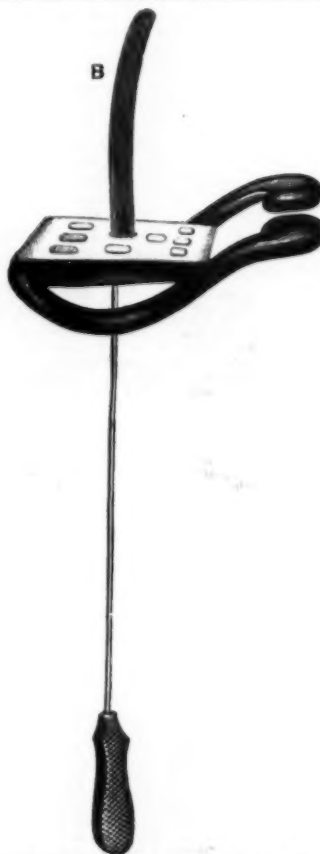


FIG. 8. B.—Shows the staff reinserted within the stem after the pessary is in situ.

manner he secures a voltaic pile, making the endometrium the connecting medium. He claims that where the metals are in successive contact the transmission of electric fluid is directly from one metal to another and comparatively slight through the tissues.

"When the uterus is readily reduced and the posterior cervical portion is long, the pessary represented in the adjoining diagram is preferable. It is constructed upon the same principle as the previously described pessary, only in this form the band surrounds the side-bars, which are slightly notched beneath the band to secure its stability. This will be found the better form of shield in the use of the galvanic stem B." (See Fig. 9.)

The prolonged presence of the galvanic stem within the uterine cavity is forbidden, as the salts of the metals resulting from chemical decomposition are capable of seriously injuring the tissues. He therefore advises the alternation of the galvanic with the plain hard rubber stem. The use of these appliances, constructed of parallel bars of zinc and copper, is pronounced highly injurious, they being apt to cause lateral cauterization, with subsequent cicatrization and contraction.

Part first concludes with a brief consideration of the influence of the mental over the physical condition

giving us a glimpse into a deeply interesting field of thought.

Part second is devoted to dysmenorrhœa, wherein the widely accepted theories regarding this subject are analyzed, and the usual operative procedures criticised. In this part, as in the former, the author insists throughout upon the importance of forming independent conclusions, and of taking a common sense view of the matter.

We have not the space to include an abstract of his views respecting the etiology and treatment of painful



FIGURE 9.

menstruation, but regard this part of the work of equal merit, if not superior, to that already noticed. The book will be read with interest by all, and will be of profit to many.

Those hypercritically inclined may object to the direct manner in which the writer attacks the views of older and more experienced authors, but his reasons for so doing seem good, and his argument convincing though somewhat sententious in style.

The general practitioner will find in this work many valuable suggestions, while the specialist in this department cannot afford to remain unfamiliar with its contents.

CORRESPONDENCE.

OUR LONDON LETTER.

MESSRS. EDITORS:—It is very gratifying to see that on your side of the water a large number of the members of the medical profession are becoming alive to the fact that ethics are ethics, that right is right, whether the ethics, or the right, be dubbed "medical," or by any other name. Here alas! it is still far otherwise. Ethics, or morals, are generally supposed to be founded on eternal principles of right and wrong, the faculty of recognizing which belongs to every sane member of the human race. *Medical ethics*, or *medical morals* on the other hand, are founded still, in this country at least, on the medical "Mrs. Grundy's" sense of what is "proper"! A medical man must not do what he knows in his conscience to be right; he must do what the leaders of the profession—blind leaders of the blind—tell him is the "proper" thing for him to do in any given case. Mrs. Grundy, sorely piqued by the snub she received at the Ryde meeting of the British Medical Association last year, is determined to assert herself. Branches of that enlightened body in various parts of the country have lately been calling on the central committee to re-enact the old laws against homœopathy, and all who soil their fingers with it, or have consultations with those who practice it. The members of the association are evidently not fit to be trusted with their own consciences! They need a medical-spiritual director, and Mrs. Grundy is the mother-confessor of their choice. When will her children throw off her tyrannous yoke, and assert their independence like men? May the example of New York prove contagious!

You make in your last issue some very pertinent remarks on Tyndall's letter on Koch's discovery, that appeared recently in the *Times*. It may interest your readers to know a few circumstances connected with that letter. The *Times* is in many respects an important and valuable paper, but if it ever possessed a character for fairness and a desire to represent the true state of public opinion on any matter, it has long since lost it. I am acquainted with two gentlemen, both perfectly well able to deal with the question, and I know of a third, one of the most eminent men in the profession, who wrote answers to the letter, but none were inserted. The *Times* made no sign that Professor Tyndall's remarks, and its own oracular utterances thereon, were not accepted as gospel by the profession and the world at large. The fact was, the real object of the letter was contained in the closing paragraph which endeavored to make capital for vivisection out of Koch's experiments, as the whole tone of the *Times* leader clearly showed. Having done that it was not at all desirable that the impression should be disturbed by letters which were likely to remove it. Koch's theories have met with some severe criticism in some of the medical journals, and on the whole, there seems to be, as yet, no strong determination on the part of medical men to poison all their phthisical patients with *carbolic acid*, to cure them of *tubercle*, and kill the latest pet *bacillus*.

The British Homœopathic Society is making an effort to improve the homœopathic *Materia Medica*. It has occurred to the society that it might do work of a more solid and enduring kind than read papers and discuss them, valuable as that work may be. Accordingly, a committee has been formed, and as a specimen of the work contemplated, the committee have made an arrangement of the drug *Aloe*. Quotations have been made from the chief of the old school authorities who have written on the drug. Then the provings have been given separately; all that is known of each prover being stated, the dose taken, and the symptoms which showed themselves related as nearly as possible in the order of their occurrence. Symptoms and provings which a majority

of the committee consider worthless have been omitted. In all cases the provings have been examined in their originals and compared with the translation as it appears in Allen. The specimen thus worked out and arranged is now printed, and is before the Society. If it meets with their approval the work will be continued.

The attendance on the lectures of the London School of Homoeopathy shows no signs of falling off during the summer session. I am glad to tell you that Dr. Dudgeon has been selected to deliver the Hahnemann oration at the opening of the Session 1882-3, which will take place in October. It will be remembered that the last was delivered by Dr. Hughes on the Organon, and the one previous by Dr. Burnett, entitled "Ecce Medicus." Those who know Dr. Dudgeon best, think most highly of the wisdom of the selection.

Yours fraternally,
JOHN H. CLARKE, M.D.

15 ST. GEORGE'S TERRACE,
GLOUCESTER ROAD, LONDON, S.W., June, 1882.

THAT "NEW PHYSIOLOGICAL COMBINATION MATERIA MEDICA."

MESSEURS. EDITORS:—In your July number Dr. G. M. Ockford criticised my proving of *ferrum muriaticum* and the plan illustrated thereby (*Vide U. S. Medical Investigator*, May 15). Will you permit me a brief reply, as he not only ridicules the scheme proposed, but denounces me as a teacher of heresy.

Substantially my offences are: That I claim to have obtained a train of symptoms from a single minimum dose, that have not been observed as resulting from large doses frequently repeated. That I ignored special symptoms as therapeutic guides. That I have departed from Hahnemann's plan and have proposed a new method of finding the similia for the totality of symptoms, one that I believe to be practical and worthy of investigation.

Both "the absurdity of my claim" and the gist of the new principle rests in the first point made. Can a succession of organic disturbances be obtained from such a dose? The truth or falsity of my affirmation is easily determined by experiment.

Assuming that every drug has an individuality, and that it is impossible for any medicinal agent to affect all parts of the organism with equal severity or at the same time, we may expect in advance of experiment that each drug taken in a moderate dose will disturb first that organ most susceptible to its influence, and so on, consecutively, the last part affected being least sensitive of all. We may find that this succession of effects is peculiar to this drug—is characteristic, and determines its individuality—pointing to the combination of derangements for which it is adapted in disease.

To obtain these successive effects in correct order, it is essential that but one dose be taken, and that so reduced as not to interfere with the normal reaction of the system, yet it must be of sufficient quantity to disturb every function of the body. It is also essential that experiments be made only by persons in perfect health, and by those competent to observe the slightest deviations from normal conditions.

The symptoms produced by such a dose will necessarily be slight and unending, but there will be a recognizable disturbance of the various functions beginning, succeeding and ending differently with each individual drug. To produce extreme symptoms, such as we meet in disease, requires repeated or toxic doses; but in obtaining such symptoms, we interrupt the consecutive action of the drug for which we are now searching. We must therefore ignore special symptoms as of little value in this line of investigation.

Let me illustrate the idea by the following experiments with *bryonia* as made by two provers.

FIRST PROVING OF BRYONIA ALB.

A. W. W. in sound health, pulse 63, regular, 8 A. M., took 5 drops 1 x dil. *bryonia* in half ounce of water.

Immediately *darting pains in palm and fingers*, followed by sharp pains in scaleni muscles.

8:05. *Slight pains above right eye ball penetrating the brain.*

8:07. *Aching pains in stomach with distention and backache.*

8:12. *Eruptions and passage of flatus.*

8:20. Loud rumbling in abdomen with nausea. Pulse 65.

9:30. Felt weary without cause, legs weak, head dull and inclined to ache.

10:15. *Sneezing and watery coryza*, limbs ache as if I had taken cold.

11:30. Sneezing and coryza continues.

4 P. M. Right eye burns and weeps, finally become swollen and injected (no external cause). Pulse 65.

5. Became quite irritable and impatient, had considerable thirst and languor. Pulse 65.

6. *First urine since morning.* Unusual. It was scant and strong, muscles of face stiff and sore, eye painful and sensitive to light.

8. Pulse 78, weak, with slight palpitation of heart when exercising.

9. Pulse 86. *Chilly and hot by turns*, thirst continues, with headache and weariness; urinated copiously.

9:30. Breathing heavy and labored while at rest; no cough.

Second day. Sleep was dreamful and troubled; urinated twice in the night (unusual); wakened with backache and headache, soreness in epigastric region on moving. Pulse 70, weak; no desire for breakfast.

8 A. M. Urgent call to stool, mostly flatus. Called to stool again at 9 and 12 o'clock; loose but scant, followed by debility and headache until evening.

SECOND PROVING OF BRYONIA ALB.

H. C. B., in full health, pulse 72, regular. 7 A. M., took 10 drops 1 x (unknown) in one half ounce of water.

Immediately *dull stitches in back*, soon after felt weak and trembling without cause.

7:08. Dull, *throbbing headache*, want to lie down and rest.

7:20. Sight of food causes *nausea*, was relieved by lying down.

8:30. *Slight pains in chest* on deep inspiration with occasional cough when exercising. Pulse 72.

10. Called to stool with colic (unusual).

11:30. Very sleepy, slept heavily half an hour (unusual), wakened with rheumatic pains in limbs, *right testicle* tender and swollen. Pulse 72.

2 P. M. Could eat no lunch on account of nausea.

5. Slight exercise produces *perspiration* (unusual), afterward chilly.

6 P. M. Pulse 90. *Feverish* with backache, headache and thirst.

7:40. Free urination and urging to stool ineffectual.

9:30. Called to stool copious and loose with colic, repeated again at midnight.

These provings show few symptoms in common, yet they exhibit a remarkable similarity, if we read them physiologically; we find that A. W. W. experienced first pains in hand and shoulders (*spinal*), followed by pains in eye and brain (*head*), these were succeeded by nausea (*stomach*), and flatulent pain in bowels (*bowels*), these were followed by sneezing (*respiratory*), and these by urination (*renal*). Then follows feverish chills (*skin*), and pulse 96 (*fever*). After this there occurred only a repetition of former disturbances.

In H. C. B. we find first, pains in back (*spinal*), followed by headache (*head*), this followed by nausea (*stomach*), and this by stitches in chest (*respiratory*) then occurs call to stool (*bowels*), then swelled testicle (*sexual*), this was followed by perspiration (*skin*), and this by increased pulse (*fever*).

Thus we find the succession is alike with the first three organs involved, while the two following differ in order of occurrence only.

It will be observed that while there was a general progression in the action of the drug involving the various organs of the body, the succession was constantly interrupted by a recurrence of symptoms from the first organs disturbed, so that they predominate in frequency as well as severity, and on the second day the complaints were chiefly of debility with headache, nausea, etc., in less degree.

If these experiments are trustworthy they point distinctly toward the limitations which surround the usefulness of *bryonia* in disease. It can be curative only when the case exhibits disturbances of the spine, head, stomach, bowels, and lungs associated with the disease, and as several other drugs do specially effect these organs, we must differentiate between them by the fact that *bryonia* alone exhibits spinal symptoms of chief importance next to the local lesion, with cephalic 2d, gastric 3d, enteric 4th "and respiratory symptoms 5th," in severity.

Whether these provings are true or false may be largely determined by clinical testimony. If correct, we should find *bryonia* frequently useful in non-febrile affections, for fever comes last in the proving, again it should prove useful in febrile affections that have exhibited prodromata. It should prove curative in rheumatism, when associated with headache, gastric derangement, constipation, and respiratory disturbances. It should be curative in headaches or meningitis when attended by bone pains, debility, "worse on motion" (spinal), nausea or vomiting (stomach), constipation (bowels), and bronchial or cardiac irritation (lungs).

It should be curative in gastritis when attended by backache or rheumatic pains (spinal), headache or sleeplessness (head), hepatic or intestinal torpor (bowels), and sympathetic cough (lungs). It should be useful in typhoid, when they exhibit long prodromata of debility and bone pains (spinal), headache and dreamy sleep (head), loss of appetite, coated tongue (stomach), constipation or diarrhoea (bowels), and more or less bronchial irritation (lungs). Later the indications are the same, though the special symptoms may vary.

Further illustrations are needless, as these suffice to indicate this method of application, the idea being that special symptoms are of less importance than is the particular combination of sympathetic disorders.

Objection may be made that uniform results cannot be obtained from many provers. This, I admit, has proved true in part so far as my experiments have been carried, yet the above provings illustrate where the deviations are most likely to occur. We have had little difficulty in obtaining the same succession from several provers up to the third or fifth organ involved; beyond these, deviations are frequent; but if we can have five, or even three distinct points as clinical guides, it is an improvement upon a single symptom. I am, however, fully convinced by my experiments, that more extended investigations, made by more careful observers, will yield more satisfactory results than I have obtained. It is a singular fact that having experimented somewhat extensively with upward of 75 different remedies, we have yet to find any two alike. All exhibited decided variation in the first five disturbances produced, and so far as our limited experience extends, these results are abundantly verified in practice.

Yours fraternally, A. W. WOODWARD.
CHICAGO, July 12, 1882.

NIGHT SWEATS (if we are to believe Drs. Beall and Menns, in the *U. S. Medical Investigator*) will in all cases be promptly arrested, by a bucketful of cold water simply placed under the bed of the patient!!

SPECIFIC OR HOMŒOPATHIC?

MESSRS. EDITORS:—The *Medical Record* for April 29, 1882, contains an article entitled "On the *Viola Tricolor* (L.) and its use in Eczema," by Henry G. Piffard, M.D.

The practical part of the essay is meritorious and deserves the verdict, good; but the theoretical part of the argument is defective. Of the pansy the doctor asks, "Is its action antipathic, homœopathic, allopathic, or, if not, what?" It is easily proven not to be antipathic, likewise it is not allopathic. Dr. Piffard also denies its homœopathicity to disease, and claims that it is specific. He says: "As we have already seen, Strack, Dillenius and others, and, I may add, Hufeland, so regarded it. If they used the term specific in the sense that we often see it applied to *cinchona* in connection with malaria, and to *mercury* in relation to syphilis, namely, as the best single remedies yet known for the diseases mentioned, I think they were fully justified in so doing."

This is not the generally accepted idea of the term "specific." Worcester says specific means "something certain to effect the purpose for which it is used; an unfailing agent."

Dr. Piffard says: "The term 'specific' has no scientific definition, and hence cannot be used with propriety except as a provisional cover for our own ignorance."

This being true—from Dr. Piffard's stand-point—we will adopt Worcester's popular definition.

According to Dr. Piffard, *viola tricolor* is a specific for eczema i. e.—as he draws the comparison,—just as *mercury* and *cinchona* are specifics; but as *cinchona* will not cure every case of chills, and *mercury* will not cure every case of syphilis, they are not specifics; ergo, *viola tricolor* is not a specific for eczema.

But on the other hand, should we, with the Professor, recognize a specific to be a remedy that will cure the majority of cases of some given disease, as *mercury* and *cinchona* will cure a large number of cases of syphilis and chills, respectively, how can we account for their failure to cure all cases?

If they cure so large a number of cases there must be some reason why they do not cure all; or, inversely, why they so often succeed. We will suggest that a study of the law of similars may possibly assist us in solving this problem; but Dr. Piffard negatives this proposition; nevertheless, not being convinced by his argument, we will attempt an analysis of his premises. Of the action of *viola tricolor* he says: "Is it homœopathic? It was so claimed by Hahnemann, in the following words: 'The pansy violet (*viola tricolor*) at first increases cutaneous eruptions, and thus shows its power to produce skin diseases, and consequently to cure the same effectually and permanently.' In this sentence we have a premise that is correct, and two conclusions that are neither logical sequences nor warrantable inferences from the premise." If we take this announcement of Hahnemann's as applying to this drug alone, Dr. Piffard is logically correct, but when we remember that the premise and its inference are but analogues of other premises with their following well proven conclusions, we hesitate to reject Hahnemann's deductions until we have inquired what other drugs conform to his assertions concerning *viola tricolor*.

Dr. Piffard continues: "If now we refer to the physiological action of the drug in support of the homœopathicity, so-called, of *viola tricolor* to eczema, we find nothing therein to sustain this view." But according to the same gentleman, "Observations relative to the pure physiological effects of *viola tricolor*, that is, its effects on the healthy, are almost entirely wanting."

Although we find nothing here to prove, neither do we find anything to disprove, the homœopathicity of the drug to eczema. How does Dr. Piffard know what symptoms might be developed by *viola tricolor* if thoroughly proved by a healthy pharmacometer? If Dr. Piffard is so anxious to prove the action of *viola tricolor* independent of the law of similars, why does

he not enter into the subject logically as a medical philosopher, and not as one who makes *a priori* deductions?

The doctor says: "If *viola tricolor* were homœopathic to eczema, it should prove, according to the Hahnemannian doctrine, most useful w. a given in infinitesimal doses."

Probably the fact may never have occurred to Dr. Piffard that a doctrine of Hahnemann and a law of nature are not necessarily synonymous. He must acknowledge that some drugs produce effects in much smaller doses than others. *Viola tricolor* is a drug that, according to the Professor, acts better in large doses. He must also acknowledge that a larger dose of this drug is required to aggravate eczema than to cure without aggravation. In the abstract, he will also find that a smaller dose will cure than will produce a disease; in other words, that the system in a state of health is better able to resist drug action than the system diseased, *e. g.*, a small amount of *arsenious acid* may be placed in a healthy stomach without serious disturbance, but the same amount cannot be given in gastritis. But what has this to do with *viola tricolor* as a specific? We shall see: A specific is a remedy that will cure the disease for which it is given. I think this is a safe statement. Thus, I cure a case of chronic nasal catarrh with *nux vomica*; *nux vomica* was the specific for this case. The drug thus becomes a *post hoc* specific. I discover another case of chronic catarrh, and I predict that the same remedy will cure; I prescribe it and it does cure; *nux* is again a specific, this time a *propter hoc* specific.

Some one hears of my success in curing catarrh with *nux vomica*, and immediately he gives it indiscriminately for all cases of chronic catarrh, signally fails, becomes disgusted and refuses to use the drug again for such cases.

Why did I succeed and our friend fail? Simply because of my ability to discover the specific virtues of the drug for the disease. And how did I do this? By the study of the law of similars. It is according to this law that *mercury*, *cinchona*—and we have every reason to believe—*viola tricolor*, may be used effectively. But Dr. Piffard says they are governed by certain inexplicable (possible) laws of nature.

When *cinchona* is given it will undoubtedly produce symptoms so closely allied to the malarial paroxysm that the observer will be unable, if he be not possessed of the fact of the administration of the drug, to tell that he is not witnessing a *bona fide* attack of ague. This is acknowledged by Trousseau, Pidoux, Bretonneau, Hahnemann, Phillips, and others. When *mercury* is given in sufficient quantities it will affect the same tissues as syphilis, and will produce symptoms in these tissues so nearly allied to the results of syphilis that, unassisted by the history of the case, a differentiation is often difficult. In the case of *cinchona* it is not necessary that the paroxysm occur more than once to prove relation between the bark and malaria. Furthermore, malaria manifests itself in a variety of phases, and unless it is the particular form which is similar to the unvarying pathogenesis of *cinchona*, this drug will fail to cure. But this peculiar form of malaria occurs during some seasons more frequently than does any other, and at these times *cinchona* will again restate itself as a specific; but whenever we find a case that does not so correspond to the effects of *cinchona* when given to the healthy prover, its administration will be useless.

So it is with *mercury* in syphilis.

This is why so-called specifics are continually being discovered and as continually found wanting, *e. g.*, the *eucalyptus globulus* for phthisis, *chian turpentine* for cancer, *salicylic acid* for rheumatism, etc. This, I predict will be the case with Dr. Piffard's eczema specific; possibly it will cure a large proportion of cases of this disease, but it will not cure all.

And now a few words as to the *modus operandi* of drugs in disease.

From the standpoint of inductive philosophy, there can be but one mode of action which can possibly terminate in health. Dr. Piffard's suggestion of the mode of action of *viola tricolor* will apply equally to any other cutaneous stimulant:

"In the infiltrated eczema green soap acts as a stimulant and irritant, producing temporarily an increase of redness, heat, and swelling; when the effects of the application have passed off, there is a diminution of these features—in other words, an improved condition of the parts."

He believed that "*viola tricolor* and *arsenic* produced a congestive effect on the affected part; after the congestion passed off the same result followed that was obtained from local stimulants." If this explains why *viola tricolor* cures eczema, why recommend it in preference to *green soap*, *arsenic*, or *nitrate of silver*? But possibly Dr. Piffard's explanation would not be so very far wrong, if he did but admit the necessity of an individual identity for each drug, and its ability to produce first, general symptoms peculiar to the class to which it belongs, and second, special symptoms characteristic only of itself.

Of all the theories upon the subject of drug action the most philosophical, according to my belief, is that advanced by Dr. Dudgeon, of England, nearly thirty years ago, and which I here copy *verbatim* from his instructive and interesting "Lectures on Homœopathy," viz.: "Now, as to the production of morbid action, I have stated that the morbid agency acts by inducing over-irritation of the part on which it acts, causing increased vital action, which is followed at a greater or less distance by diminished vital action, which gives rise to those phenomena we call disease. The morbid agents, then, natural and medicinal, are both primarily irritant, and cause increased vital action. When a case of disease presents itself to us we have before us an instance of diminished vital action, in order to remedy which, by the method under consideration, we must apply an irritant capable of stimulating the diseased part up to the healthy level. Now, the medicine that will cause the same morbid symptoms as the disease in question, must in its primary action be an irritant that acts on the same part or parts as those diseased, and obviously this medicine will be the remedial agent for this disease, if we can so regulate its power as to cause it to do no more than stimulate the diseased part up to the normal level, when, of course, the disease will be extinguished and healthy action restored. *A priori* reasoning will throw little light on this subject beyond leading us to infer that the quantity of the medicine requisite for this purpose must be less than what is required to produce the over-irritation necessary to cause morbid action in the healthy; but if, in addition to this, we reflect on the fact that the susceptibility of a diseased part for its specific irritant is much greater than that part in health, we shall be satisfied that the quantity required must be much less."

In conclusion, there are no general specifics. Every drug is a specific for the pathological condition similar to its pathogenesis. *Cinchona*, *mercury*, *viola tricolor*, and all other drugs, are specific only as they can be applied according to the law of similars.

ELDRIDGE C. PRICE, M.D.

BALTIMORE, MD., July, 1882.

STRYCHNIA POISONING IN A DOG CURED BY CHLORAL HYDRATE.—Dr. W. P. Gibbons says, "A large St. Bernard dog was recently poisoned by *strychnia*. When seen about six hours afterward, his posterior extremities were so affected with clonic spasms that he could neither walk nor stand; every indication pointed to a fatal result. Two drachms of *chloral hydrate* were dissolved in an ounce of water, and I ordered one-fourth to be given at a dose, repeated every hour. The first dose gave marked relief in a few minutes, and the animal recovered."

DR. WINSLOW'S ERROR.

MESSRS. EDITORS:—The *Hahnemannian Monthly* for July contains an article entitled "The Impending Crisis," by W. H. Winslow, M. D., in which we notice the following:

"A great deal of discussion has occurred in England about consultation between the two rival schools in surgical cases. It should be known that a sharp line is drawn there between practitioners of surgery and practitioners of medicine. Men graduate and practice there exclusively as surgeons or exclusively as physicians, though exceptionally as both. Consultations there are very frequent, and often very necessary. The licentiate must call a physician in grave cases; the licentiate and physician must both call a surgeon for surgical operations; the surgeon must, in turn, call upon the physician in non-surgical cases. Such is the law, and in that country laws are generally enforced."

Here is a most inaccurate representation, which it may be as well to correct, especially since much of the writer's argument is founded on it.

It is true that, in England, a man who has taken merely the degree of doctor or of licentiate in medicine, is not allowed to practice as a surgeon. It is also true that the great majority of practitioners in that country are graduates of a "royal college of surgeons." But these, in every case, have also passed an examination by the "Society of Apothecaries," which licenses them to prescribe and dispense medicines. They are fully qualified to take charge of all cases—medical, surgical, and obstetrical—occurring in the usual routine, and hence are known as "general practitioners"—precisely the class which Dr. Winslow tells us does not exist in England. In difficult cases a consulting M.D. is called in, or a prominent surgeon is summoned to perform a capital operation, but this is a matter of custom, not of law, and the patient still remains under the immediate care of the previous attendant. In fact, the average British doctor differs from his American brother almost solely in being more of a surgeon than the latter generally pretends to be.

An ordinary familiarity with English literature ought, one would think, to have saved Dr. Winslow from the commission of such an error. VERITAS.

DEFER'S TREATMENT OF SIMPLE HYDROCELE.—Dr. Rol, in the *Bull. de Ther.*, praises this method of which he gives the following description: The hydrocele is punctured with canula and trocar, as usual, and evacuated; through the canula is introduced a sound, on the end of which is fused a little piece of nitrate of silver; the interior of the tunica vaginalis is then rapidly touched at different points with this caustic, when the sound, and after it the canula, are withdrawn. The results of this mode of treatment are said to be excellent. Notwithstanding the occurrence of a sharp inflammation, lasting five or six days, a cure is generally obtained, not by adhesion of the two surfaces of the tunica vaginalis, but a simple vital modification of that membrane. The return of the effusion is rare. Defer's operation is thus described as perfectly safe, thoroughly efficacious, and easily performed.—*Med. Press and Circular*.

SUGGESTIONS AS TO THE MODE OF USING THE FORCEPS.—Dr. H. Lowndes deduces four rules as the result of his experience: 1. Traction should be made in the intervals, instead of during the pains. 2. When traction is not being made, the handles of the forceps should be allowed to lie apart as they will. 3. During the pains the handles should be merely gently managed so that they may not be expelled or do hurt. 4. During the passage of the head through the vulva the forceps should be used when necessary as a restraining power during the pains, and labor completed by traction during an interval.—*Brit. Med. Jour.*

REST AFTER DELIVERY.—Some years ago, Dr. Goodell, of Philadelphia, recommended early getting up after delivery. At the Preston Retreat patients arose the day after delivery and sat in a chair while the bed was being made, and in four or five days were allowed to get up and dress. Of 756 patients so treated only six died. In a paper in the *American Journal of Obstetrics* (Oct. 1880), Dr. Garrigues expresses strong opposition to this plan, and corroborates his opinion by that of a large number of obstetricians who advocate the retention of the patient in bed for from a week to ten days. Dr. Garrigues, indeed, goes further than this, and says: *The upright and sitting postures ought to be carefully avoided until involution has proceeded so far that the uterus has receded from the anterior wall of the abdomen and returned to the pelvic cavity, which in most cases takes two weeks.* Prof. J. H. Etheridge (*Chicago Med. Jour., and Exam.*, Aug. 1880,) still further protracts the time of getting up, and says he has reached the solemn conviction that every woman, after delivery, should be made a physician's care for at least two months, or until the uterus has reached its normal size. He bases his opinion upon the facts adduced upon investigation of one hundred consecutive gynecological cases as follows:

CAUSES.		DIAGNOSIS.	
Confinements	50	Hypertrophy	34
Miscarriages	38	Uterine catarrh	53
Hard work	5	Lacerated cervix	6
Unknown	17	Prolapsus	2
	100	Metrorrhagia	1
		Retroflexion	1
			100

In other words, seventy-eight per cent. of all gynecological cases, exclusive of virgins and those suffering from malignant or syphilitic disease, are attributable to gestation, partial or complete.

EXPRESSING THE PLACENTA.—Créde's method consists essentially in applying at first light and afterward stronger friction to the fundus of the uterus till an energetic contraction is obtained; at its height the uterus is grasped so that the fundus rests in the palm of the hand, with the fingers to the front. The exercise of circular compression forces the placenta from the uterus, or, in case of failure, the process is repeated until the object is accomplished. It is true that the expulsion of the placenta will, as a rule, occur spontaneously. The unaided uterus is, however, liable to relax and become the source of hemorrhage; or, where the delivery does not take place speedily, it may, on the other hand, close down so as to imprison the placenta within its cavity. The great merit of Créde's method is, that by maintaining contraction it prevents hemorrhage, and by promoting speedy expulsion it guards against the dangers of retention. When systematically practiced the bugbear known as adherent placenta is the rarest of accidents.—*Lusk's Midwifery*.

BADER'S SCLEROTOMY.—According to Dr. W. W. Seely, in the *Cincin. Lancet and Clinic*, Dec 10, 1881, Mr. Bader, of Guy's Hospital insists most strenuously (and produced cases to prove the correctness of his position; International Congress) that not only are all sorts of glaucoma best treated by means of sclerotomy, but also most startlingly insists that he regards the best sclerotomies to be those followed by prolapse of the iris, staphyloma, as he calls it, of the conjunctiva, with or without prolapse of the iris.

If Mr. Bader is correct, it would seem as though our ideas respecting this operation have been exactly the reverse of true, and that our cases have gotten well largely in spite of our efforts to prevent them.

Mr. Bader not only does not leave a bridge of sclera to save prolapse, but he cuts the bridge and compels, if possible, the iris to fall into the wound and become agglutinated therein.

SOCIETY REPORTS.

ALLEGHENY COUNTY, PA., MEDICAL SOCIETY.*

DISEASES OF THE MONTH.

DR. CARUTHERS: The diseases that have fallen under my notice most frequently during the last month have been measles, whooping cough and typhoid fever.

The onset of the attack of measles have been varied, scarcely any two of the cases beginning alike. I saw three cases in one family. One child, the eldest, had the disease moderately severe and became convalescent. In about two weeks I was called to see the baby, aged about two years who had had a severe spasm. I suspected that he was coming down with the same disease and on the fourth day the eruption appeared, but it was very faintly marked. He was given hourly doses of *Bryonia*, and the next day the eruption was fully out. The other child, a boy of about five years, when seen the morning the little one had the spasm, showed no sign of coming trouble, but the next day was in full blossom with the characteristic eruption.

A little girl of three years was brought to my office, being feverish and having a slight cough. By the next evening when called to see her, the eruption was plainly visible. In this case the rash remained for three days, and then disappeared at once, not gradually as is usual.

One little boy, about two years old, was restless and feverish, with coryza and hoarse cough, for three nights, and, when seen on the fourth day, the eruption was just beginning to appear, its recognition being made difficult by an eruption on the body and neck of heat rash.

One case was accompanied for a day with diarrhoea of dark and offensive stools. *Arsenicum* was given with entire relief.

Another little fellow, about seven or eight years old was brought to me with a slight cough and the statement that he had been flighty and threatened with spasms for two or three nights. He would rise up in bed bewildered, and struggle and attempt to get out of bed. I thought first of an article recently translated by Dr. Strong, on "Santonine in the Night Terrors of Children," but taking into consideration the epidemic influence at work and the character of the cough, etc., I concluded it was probably a case of measles, although his father said he had had measles once. The next day there was no doubt of the diagnosis, and as the boy had been attended in his previous attack by one of our most careful homœopathic physicians, I am obliged to record this as an instance of a second attack, which, though rare, does occur.

None of these cases were at all complicated, and, so far, have not been followed by sequelæ.

The cases of whooping-cough have also varied in severity; some were so slight as to scarcely require treatment, while others were more severe. The medicines required have been *drosera*, *cuprum*, *belladonna*, and *ipæac*. The usual indications led to the selection of one or other: *cuprum* when there was long-continued paroxysms, loss of breath, bluish appearance of face and lips, vomiting of thick mucus; *drosera* for early morning cough; *bell*, when the cough causes congestion of head and face; *ipæc*, when there is rattling of mucus, vomiting, epistaxis.

One case in particular, which was pretty severe, but which was relieved by *cup. met.*, while apparently convalescing was attacked by pneumonia to which he was subject, having had two attacks previously. With a temperature of 103° and a respiration rate of 70 per minute, the prognosis looked bad, but, by the administration of *Bryonia* internally and the application of warm compresses to the chest he was relieved.

In the same family was an infant girl two months old, who, not seeming to thrive on its natural food supply,

* Balance of report crowded out this month, and will appear in our next.

was fed on Nestle's milk food and was beginning to gain flesh when it commenced to cough. The cough increased in severity, there was an occasional whoop, but the combination was too much and after a short struggle lasting two weeks it succumbed.

The cases of typhoid fever that I have seen have been mild, and nothing specially noteworthy occurred in their course. One case in a boy of about nine years was mild, the temperature not exceeding 102½°, but he was restless and delirious at night, though quiet during the day.

He was given *hyoscyamus*, after which there was no more restlessness or delirium. His temperature for the last three days has been 100°, and, as this is the middle of the third week, the prognosis looks good.

DR. FERSON: *Whooping cough*.—Child 18 months old. Was called to see it on May 26, and found that it was having greenish, watery stools every two hours, starting in sleep as if frightened, eyes partially opened when sleeping, free perspiration about the head, restless, peevish when disturbed. There was also frequent spasmodic attacks of coughing, oftentimes followed by vomiting. The child had one upper and lower tooth through and two more coming. The upper gum was swollen and inflamed. The temperature was 103½° and pulse 160. *Bell.* was given and on the next day the child seemed better, the temperature and pulse being less. On the 30th the condition was aggravated. I lanced the swollen gum, which seemed to relieve. The *bell.* was still continued. On the 31st, although the child had slept better the cough was worse. The paroxysms exhausted the child, and were so severe that it turned blue in the face, and at times nearly black, as if strangled. June 1, *cuprum* was given, the cough still increasing in severity. This condition continued until the morning of June 4th, when the child was seized with a spasm, which lasted for ten minutes, and died at noon of the same day. The remedy had not been changed.

DR. WILLARD: *Chamomilla in diphtheria*.—This child had been sick for two weeks. There were patches on both sides of the throat, on the tonsils and uvula. There was general improvement under the remedies given, but no clearing off of the membranes. At this time the child became restless, and cross, with all the mental characteristics of *cham*. This drug was given, and the membrane began to disappear immediately, and in two days was all gone. (T. M. S.)

SYPHILIS COMMUNICATED BY SKIN-GRAFTING.—M. Debel (*Le Prog. Méd.*) relates the following case: A man, 49 years of age, was attacked with gangrenous erysipelas, which was followed by extensive ulcerations with difficult cicatrizations. Forty-five grafts were applied upon the external half of the wound, and of this number, 33 adhered. Several days later a new series, taken from different persons, were applied to the inner half of the ulceration. The cicatrization was progressing when there appeared upon the wound a grayish-white ulceration the size of a one franc piece, which soon invaded the entire ulcerated surface. After a short interval mucous patches appeared in the mouth, and a roseola upon the skin. There was now no doubt of the specific nature of the disease, and on enquiry it was found that the son was suffering from syphilis. Specific treatment was instituted and the cicatrization of the wound brought to a successful issue. (T. M. S.)

ELONGATION OF THE DENTAL NERVE.—M. Polailon (*Le Prog. Méd.*) trephined the inferior maxilla over the inferior dental nerve, drew out the nerve to a length of 0.01, and then replaced it in the wound. The patient was 62 years of age, and was attacked with an epileptiform neuralgia of the fifth pair. Before the operation anæsthetics had no effect, but afterwards they were efficacious. This was the first instance in which the inferior dental nerve had been stretched, and the result was still in doubt. (T. M. S.)

THE BIGOTRY OF THE ALLOPATHS.

The late action of the Massachusetts Medical Society seems almost past belief in an enlightened age like this. A well-educated, young Harvard-trained physician, Frederick F. Moore, a member of the society, now practicing in New York, held a consultation with Dr. Henry C. Ahlborn, an accomplished and thoroughly educated physician of the new (homœopathic) practice. He was, in consequence, summarily expelled from the society, though very ably defended by Dr. Hunt, an experienced and much respected physician of the old school, and an honored member of the society itself, who protested against both the folly and injustice of the act. Not confining himself to the special case, he argued bravely and unanswerably against the folly and injustice of a by-law of the society—the spirit of which is now often evaded, he showed, by leading members, but which, in its letter, opposes itself to the liberal and progressive spirit of the age. Of course such ostracism cannot long stand in the light of publicity at this day.—*Boston Commonwealth*, July 15.

CIVILIZATION IN ITS RELATION TO THE DECAY OF THE TEETH.—Dr. Norman W. Kingsley in an essay, with the above title, read before the International Medical Congress, shows that in attempting to explain the decay of the teeth so prevalent to-day, we must go back to the causes popularly ascribed, such as candy, hot and cold drinks, "the contact theory," want of cleanliness, climate, etc., and find the explanation in our advanced civilization with its luxury and ease, and gratification of the appetites and æsthetic tastes, and the resulting neurasthenia. "Decaying teeth and nervous diseases are correlated—each, in a measure, resulting from the other, and both symptoms of a common cause. Neurasthenia, or nervous exhaustion, is the almost uninterrupted condition of large numbers of the most highly cultivated and most charming people of modern society. I use the term 'nervous exhaustion,' not in a positive, but in a relative sense. Thousands, among the classes referred to, may not show the positive symptoms of nervous exhaustion; but they have, nevertheless, no reserve nervous force."

A CASE OF UNILATERAL HALLUCINATION OF HEARING.—M. Ball (*Le Bulletin*) reports the following: A young man, 22 years of age, had had for many years a purulent otorrhœa and perforation of the tympanum. He had an attack of typhoid fever at the age of 16, and since then his intellect had been lessened, but his judgment remained intact; the otorrhœa had also been aggravated. The deafness in the left ear was complete since the fever, and the patient complained at first of ringing and musical sounds in the ear, then singing, but could not distinguish the words, and, finally, voices pronouncing insulting words. He was conscious that the trouble arose from his deafness, and he did not present any other mental irregularity. Under treatment, the hallucinations diminished but the deafness continued. (T. M. S.)

AMYL-NITRITE AS AN ANTIDOTE FOR STRYCHNINE.—Dr. Robert Barnes, in *British Medical Journal*, shows how the spasm-subduing virtue of amyl-nitrite, together with the circumstance that it is administered by inhalation and not by the mouth, makes it valuable as a physiological antidote in strychnine poisoning. He gives a case in illustration.

QUININE IN CHOLERA INFANTUM.—Dr. Otis F. Manson, in *Trans. Va. Med. Society*, 1881, makes the surprising statement that he has not lost a case of cholera infantum since 1846.

Regarding the disease as malarial, he uses quinine, preceded, in the early stage, by calomel.

MEAT BREAD.—M. Scheurer Kistner has discovered the remarkable fact that the fermentation of bread causes the complete digestion of meat. He found that a beef-steak cut into four pieces and mixed with flour and yeast, disappeared entirely during the process of fermentation, its nutritive principles becoming incorporated with the bread.—*Sanitarian*.

A NEW REMEDY FOR TAPE-WORM.—*Panna*, the root of *aspidium athamaticum*, whose habitat is the Cape of Good Hope, is said in the *Physicians' and Surgeons' Investigator*, to be the best, mildest and safest remedy against tape-worm. About six grammes divided into three doses are sufficient for a complete cure.

THE AMERICAN PÆDIOLOGICAL SOCIETY held its third annual session at Indianapolis, Ind., June 14, last, with a full attendance and a variety of papers, capillary bronchitis being the principal subject for discussion.

The following were elected officers for the ensuing year:—President, R. N. Tooker; Vice-President, T. Franklin Smith; Secretary and Treasurer, L. C. Grosvenor. Several names were added to the membership.

THE North American Review comes to us for August freighted, as usual, with its variety of reading, which cannot fail to interest the class of readers for which it caters. "Progress of Thought in the Church," by Henry Ward Beecher, heads the list of "Contents," and we need only add that the subject is treated in the author's best manner.

DIED.—The veteran Dr. C. D. Williams, of St. Paul, Minn., after forty-nine years of active practice. Drs. Chas. Griswold, H. Hutchinson and C. A. Hughes, reported resolutions of condolence, at a meeting called for the purpose, which were adopted.

THE Century Magazine for August makes a strong appeal to popular favor, both with the excellence of its illustrations and the interest and timeliness of its text. Ten pages are devoted editorially to "The Metropolitan Museum and its Director."

DR. ANTONIO AUGUSTO has been instrumental in founding a hospital for children at Porto, Portugal. The hospital will bear the name of the queen, Maria Pia.

N. Y. OPHTHALMIC HOSPITAL.—Report for June: Prescriptions, 3,883; new patients, 760; patients resident, 21; average daily attendance, 148; largest, 208.

The streets of New York were never in so cleanly a condition as the present summer, thanks to Commissioner Coleman.

DR. ZOILO PEREZ, director of the *Journal El Criterio-Médico* has been elected a member of the Spanish Cortes.

THE Princess d' Oettingen-Wallenstein has left 50,000 marks to found a homœopathic hospital in Munich.

DR. S. H. TALCOTT has been again honored by his *Alma Mater*, and he is a Ph. D. of Hamilton.

A BOARD of Health has been organized at Hot Springs, Ark., with Dr. L. S. Ordway as president.

THE Medical Counselor will hereafter hail from Grand Rapids, Mich., instead of Chicago.

DR. W. B. PUTNAM, of Hoosac, is in Europe for special study.

KEITH has sent his son to New York to learn gynecology.